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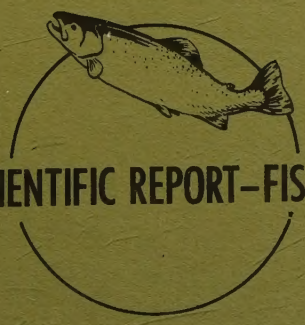
PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA--SOUTH ATLANTIC COAST OF THE UNITED STATES

Gill Cruise 7



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EXPLANATORY NOTE

The series embodies results of investigations, usually of restricted scope, intended to aid or direct management or utilization practices and as guides for administrative or legislative action. It is issued in limited quantities for official use of Federal, State or cooperating agencies and in processed form for economy and to avoid delay in publication.

United States Department of the Interior, Fred A. Seaton, Secretary
Fish and Wildlife Service, Arnie J. Suomela, Commissioner

PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA SOUTH ATLANTIC COAST OF THE UNITED STATES M/V THEODORE N. GILL CRUISE 7

by

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Fishery Research Biologists
Bureau of Commercial Fisheries

United States Fish and Wildlife Service
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PHYSICAL OCEANOGRAPHIC, BIOLOGICAL, AND CHEMICAL DATA
SOUTH ATLANTIC COAST OF THE UNITED STATES
M/V THEODORE N. GILL CRUISE 7

This is the seventh in a series of reports presenting basic data from cruises of the Theodore N. Gill in waters off the South Atlantic coast of the United States.

Background of the investigations; objectives; procedures on station; and chemical, biological, and oceanographic methods and procedures were presented in the report for Cruise 1 (Anderson, Gehringer, and Cohen, 1956). Biological methods and procedures were the same as those modified on Cruise 3 (Anderson and Gehringer, 1957). The basic station plan is shown in figure 1.

NARRATIVE ACCOUNT OF CRUISE 7

The Gill sailed from Brunswick, Georgia on June 9, 1954 and headed for special station 5 to begin the southern leg of the cruise. Special station 5 was reached and occupied on June 10, and special stations 6 and 7 were made on June 11. On June 12 the vessel occupied special station 8 and proceeded to the standard station off Elbow Cay, B.W.I. From June 12 to 14 the standard station was occupied for 42 continuous hours, during which time 15 hydrographic casts were made, including one to 2500 meters. Fathometer traces were taken on this station for 10 minutes every hour, and special plankton tows made in a study of the deep scattering layer. Routine meteorological and bathythermograph observations were also taken.

The vessel docked at Nassau, B.W.I., on June 14 for installation of special equipment by Columbia University personnel. On June 16 and 17 special ambient work was conducted at the standard station. The ship then proceeded into the Tongue of the Ocean, where additional ambient observations were carried out. Continuous sonic soundings were taken during this run for correlation with the ambient work. The vessel returned to Nassau, and the special equipment was unloaded on June 21. Occupation of the regular stations began on June 23. Excellent weather prevailed during the remainder of the southern leg, resulting in 100 percent completion of the projected stations. The vessel returned to Brunswick on June 28 for supplies and to unload material collected.

The Gill departed from Brunswick to begin the northern leg of the cruise on July 1. Favorable weather prevailed until the vicinity of Cape Lookout, North Carolina was reached, where rain squalls and winds up to about 50 knots forced the vessel into port at Morehead City, North Carolina. After the vessel resumed work, all but one of the remaining regular stations were accomplished before bad weather caused termination of the cruise. The vessel returned to Brunswick on July 13. The cruise track is shown in figure 2.

The vessel traveled over 3,000 miles in making this cruise, occupying 100 hydrographic stations (including regular, special, standard, and Tongue of the Ocean) with Nansen casts (fig. 3) and bathythermograph lowerings on each station. Oxygen determinations were made aboard vessel for all stations and all levels. Water samples were secured from all stations and levels for shore analysis of salinity, total phosphorus, inorganic phosphate, carbohydrates, proteins, and nitrate-nitrite. Secchi disk readings were taken during daylight hours when conditions permitted. Bottom samples were secured on selected stations where several samples had not been collected on previous cruises. Oblique plankton tows were made with the Gulf III all-metal plankton sampler on all but one of the regular and special stations--a silk net was used on this one station due to heavy seas. Seventy-five runs between stations were obtained with the Gulf IA high-speed plankton sampler, and 31 runs were made with the continuous plankton sampler. Dip-net collections (fig. 4) were good on the southern leg of the cruise but poor on the northern leg. Trolling with nylon and bone jigs between stations was more successful than on most previous cruises. Several trolling lines were also carried away by large fish.

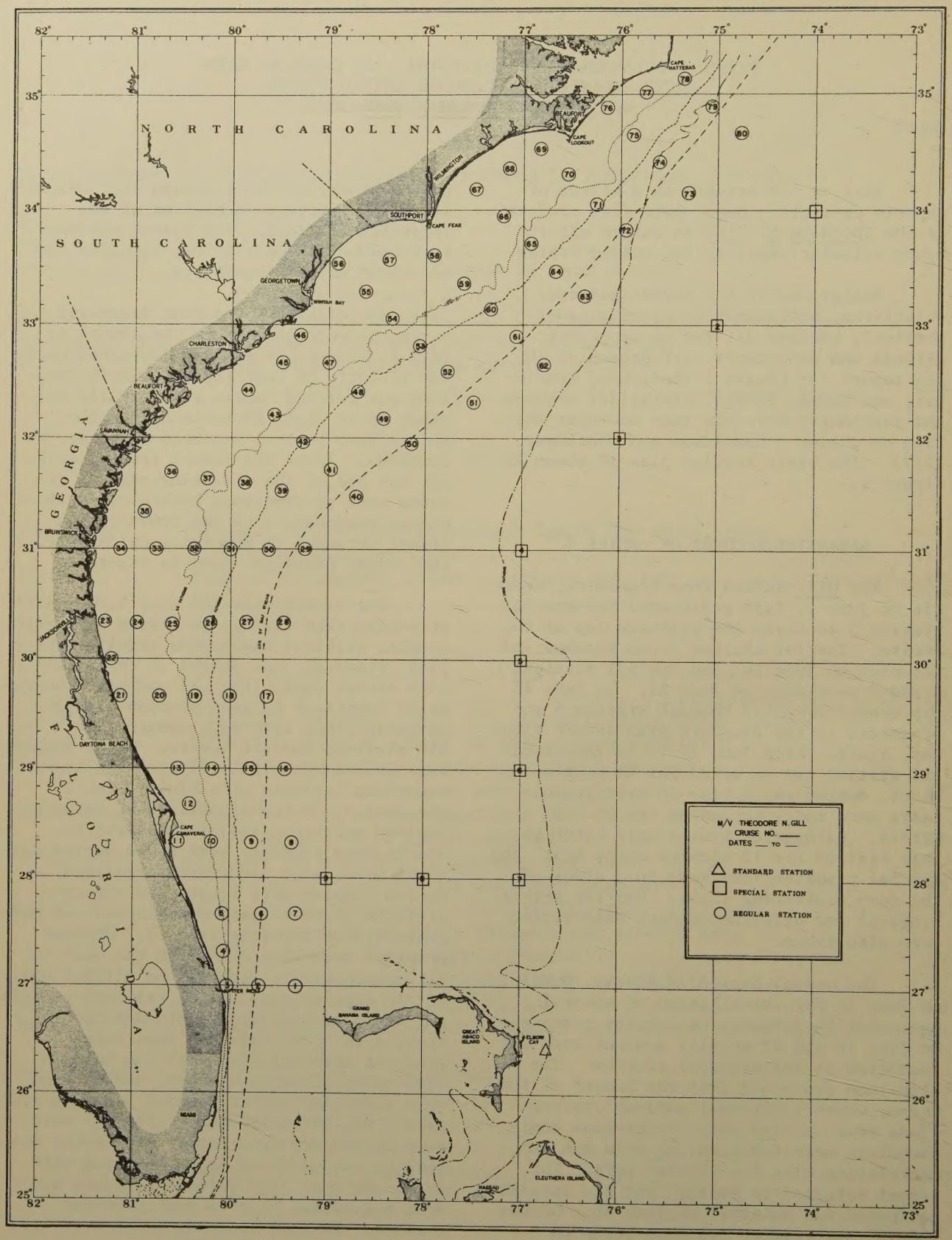

Figure 1.--Basic station plan.

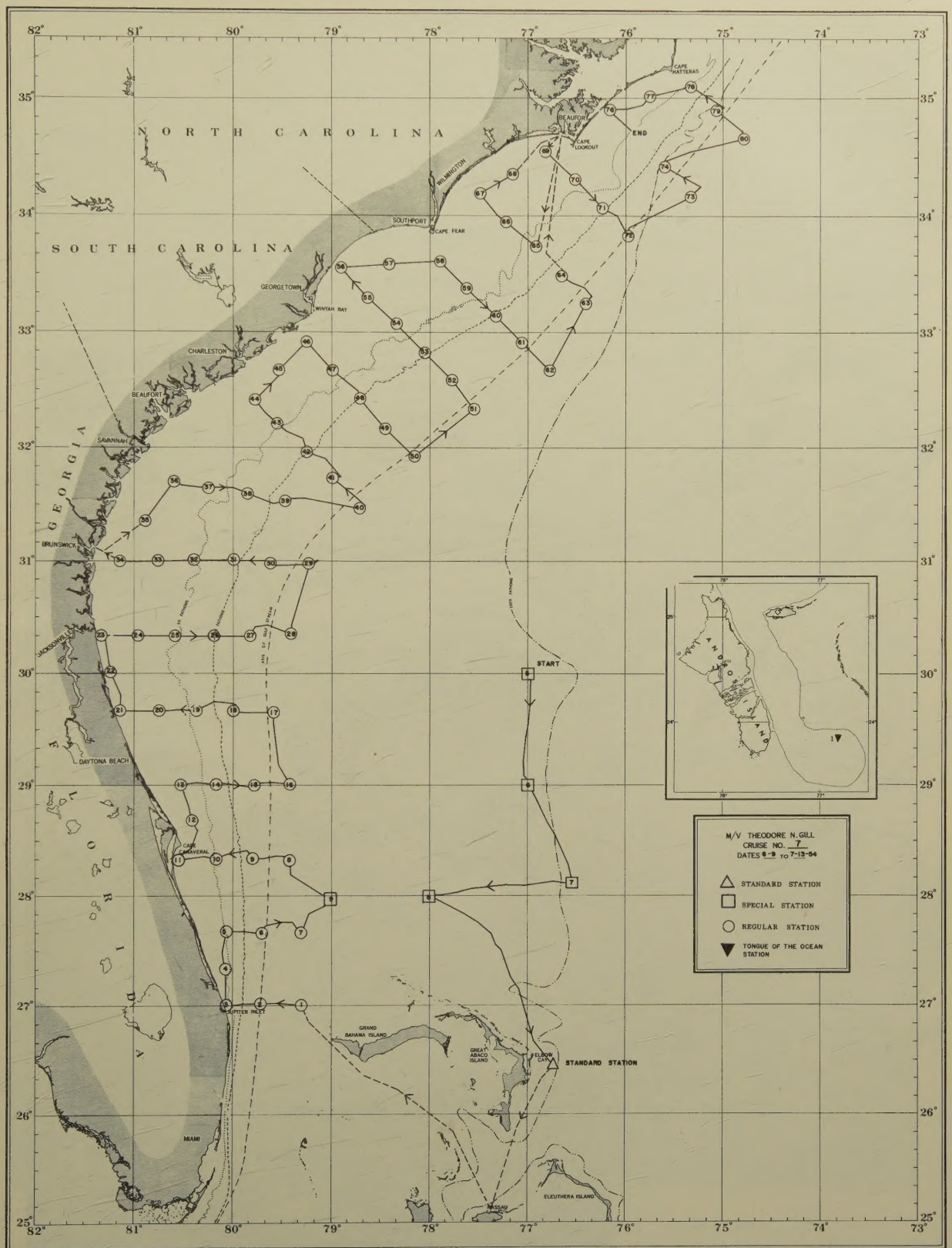

Figure 2.--Track chart.

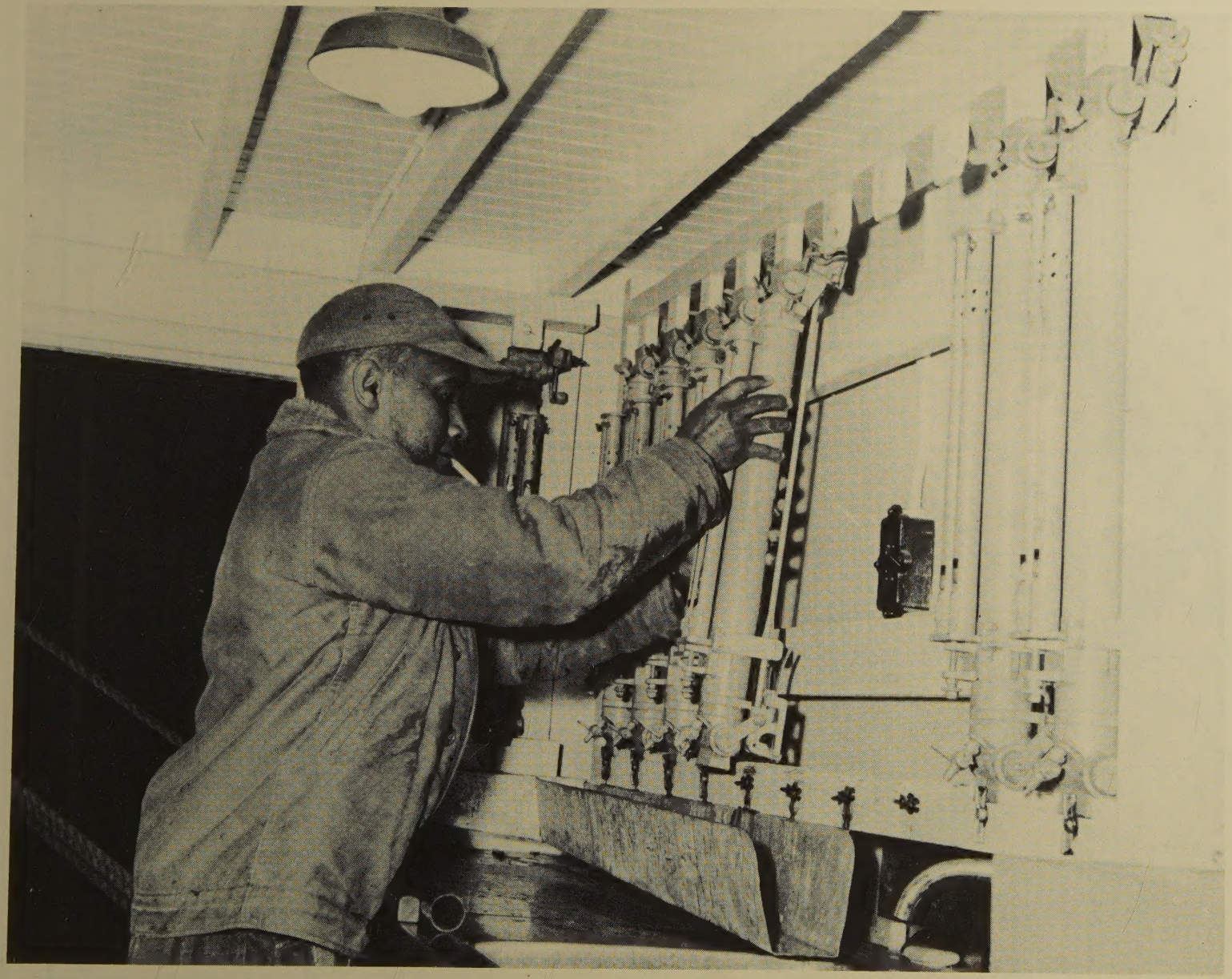

Figure 3.--Placing full Nansen bottle in rack during hydrographic cast.

Figure 4.--Dip-netting in seaweed for fish specimens.

Twelve drift bottles were released for the Woods Hole Oceanographic Institution on each of 40 inshore stations. The bottles used were 8-ounce, clear glass soda bottles approximately 22 cm. high and 6 cm. in diameter. To reduce wind drift the bottles were ballasted with clean dry sand, so that they floated vertically at or near the surface. The tabulated results are given in table 16.

Lightning struck the vessel during a severe rain squall early on the southern leg, damaging the radio antenna, some electronic equipment, other electric equipment, and the ship's magnetic compass. No one was injured by the incident.

Scientific personnel participating in the cruise were:

I. Southern Leg

U. S. Fish and Wildlife Service and Cooperators:

William W. Anderson	Chief Scientist
Jack W. Gehringer	Fishery Research Biologist
Joseph E. Moore	Chemist (Georgia Game and Fish Commission)
Charles P. Goodwin	Chemical Aid

Navy Hydrographic Office:

Melvin Light	Senior Oceanographer
Clarence Janifer	Oceanographer
John Duncan	Oceanographer

Office of Naval Research:

Robert A. Pedrick	Chemist (Cheapeake Bay Institute)

II. Northern Leg

U. S. Fish and Wildlife Service and Cooperators:

William W. Anderson	Chief Scientist
Jack W. Gehringer	Fishery Research Biologist
Charles P. Goodwin	Chemical Aid

Navy Hydrographic Office:

Melvin Light	Senior Oceanographer
Clarence Janifer	Oceanographer
William Deebel	Oceanographer
C. W. Backus	Technician

Office of Naval Research:

Blair Kinsmin	Oceanographer (Chesapeake Bay Institute)

EXPLANATION OF DATA SHEETS AND TABLES

Oceanographic and Chemical

Each of the items appearing on the station data pages is explained below. All doubtful data are indicated and were not used in the construction of the curves from which the interpolated values (standard depth values) were derived. Observed values which were obviously false were omitted entirely. A dash in a table means that no value was available. Interpolations for standard depth values for temperature, salinity, sigma-t, and oxygen are IBM calculations; those for the chemical constituents were derived from straight lines between observed values.

The profiles of salinity, temperature, and density were prepared from these data, and appear as figures 5-20.

1. Cruise Number. The first cruise over the established station pattern (fig. 1) was numbered Gill 1, and subsequent cruises, Gill 2 through Gill 9 (only Gill 7 is covered by the present report).

2. Station Number. Stations are numbered consecutively, starting with one, at the beginning of each cruise. The station pattern and numbers as shown in figure 1 were maintained on each cruise. If a station or series of stations was not occupied, these station numbers are omitted. Regular stations have numbers only; standard and special stations are specifically indicated.

3. Date. Month, day, and year are given.

4. Latitude and Longitude. The position of the station is given in degrees and minutes.

5. Time. Given in Greenwich Mean Time and is that hour nearest to the start of the first cast.

6. Depth. Is the observed uncorrected sonic sounding for the station recorded in meters.

7. Wind. Wind speed is given in meters per second. Direction from which the wind blows is coded in degrees true to the nearest ten degrees. The last zero is omitted. North is 36 on this scale and calm is 00. See table 1, "Compass Direction Conversion Table for Wind, Sea, and Swell Directions".

8. Barometer. The barometric pressure is coded in millibars, neglecting the 900 or 1000. Thus 996 millibars is coded as 96 and 1008 millibars is coded as 08.

9. Air Temperature. Dry bulb and wet bulb temperatures are entered to the nearest tenth of a degree (centigrade).

10. Humidity. The percent of humidity is coded directly.

11. Weather. Weather is coded as indicated in table 2, "Numerical Weather Codes-Present Weather".

12. Clouds. Cloud type and amount are coded as indicated in table 3, "Cloud Type"; and table 4, "Cloud Amount".

13. Sea. Sea direction and amount are coded as indicated in table 5, "Sea Amount"; and table 1.

14. Swell. Swell directions and amount are coded as indicated in table 6, "Swell Amount"; and table 1.

15. Visibility. Visibility is coded as indicated in table 7, "Visibility".

16. Water Transparency. Given as meters to which a Secchi disc is visible.

Subsurface Observations

1. Sample Depth. Observed (actual) depth of each sample is given in meters. Interpolated values at standard depths are also given. The standard depths in meters are: 0, 10, 20, 30, 50, 75, 100, 150, 200, 250, 300, 400, 500, 600, 700, 800, 1000, 1200, 1500, 2000, 2500, 3000, and thence every 1000meters.

2. Temperature. The centigrade temperature is given in degrees and hundredths.

3. Salinity. Salinity is given in parts per thousand to two decimal places.

4. Sigma-t. To convert density divide by 1000 and add 1. Thus, a sigma-t value of 22.35 converts to a density of 1.02235.

5. Dissolved Oxygen. These values are given in milliliters per liter to two decimal places.

6. Total Phosphorus. Values are given in microgram atoms per liter to the nearest 0.1 of a unit.

7. Inorganic Phosphate. Values are given in microgram atoms per liter to the nearest 0.1 of a unit.

8. Nitrate-nitrite. These values are given in microgram atoms per liter to the nearest 0.5 of a unit.

9. Carbohydrates (Arabinose). These values are given in terms of milligrams per liter to the nearest 0.1 of a unit. Collier et al. (1953) presented a technique for estimating certain elements of the organic materials in sea water which react to the test for carbohydrates. The carbohydrate values are given as arabinose equivalents, and are not necessarily the actual concentrations of carbohydrate substances.

10. Proteins (Tyrosine). These values are given to the nearest 0.1 of a unit as milligrams per liter of protein material in sea water, which reacts to the test for tyrosine.

Biological

1. Plankton volumes (Gulf III and silk half-meter nets), table 8. The position given is that at beginning of the tow. The depth of the haul is given from 0 to the greatest depth reached. The volumes as given are "wet volumes" (procedures for determination were given under methods in report for cruise 1). Very few samples contained large organisms such as jellyfish (which were removed), so that the volumes represent smaller organisms.

2. Plankton volumes (Gulf IA High-speed sampler), table 9. The position given is that at the center of the tow. All tows were made at the surface. The volumes as given are "wet volumes" (procedures for determination were given under methods in report for cruise 1). Very few samples contained large organisms such as jellyfish (which were removed), so that the volumes represent smaller organisms.

3. Numbers of plankton organisms per cubic meter of water (half-meter net), table 10. The procedures for plankton tows, methods for sorting and counting, and calculations of numbers of organisms were described under methods in report for cruise 1. Counts are given for major groups as indicated.

4. Numbers of plankton organisms per cubic meter of water (high-speed sampler), table 11. The procedures for plankton tows, methods for sorting and counting, and calculations of numbers of organisms were described under methods for cruise 3. Counts are given for major groups as indicated.

5. Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), table 12. Description of this sampler, its use, and methods of calculating numbers of organisms were given under methods in report for cruise 1. Counts are given by compartment for major groups as indicated.

6. List of the species of fish in dip-net, trolling, and stomach contents collections (D-dip net; T-trolling; S-stomach contents), table 13. The species are listed in alphabetical order, followed by symbols indicating method of capture.

7. Numbers and species of fish taken by trolling, table 14. The stage of gonad development is based on International Council classifications of gonad maturity for the herring (International Councils Rapports et Proces-Verbaux des Reunions, Vol. LXXIV, pp. 117, March 1931). The scale is only a guide to general classifications and must be treated as such.

This scale follows:

Stage I. Virgin individuals. Very small sexual organs close under vertebral column. Wine-coloured torpedo-shaped ovaries about 2-3 cm. long and 2-3 mm. thick. Eggs invisible to naked eye. Whitish or grayish brown knife-shaped testes 2-3 cm. long and 2-3 mm. broad.

Stage II. Maturing virgins or recovering spents. Ovaries somewhat longer than half the length of ventral cavity, about 1 cm. diameter. Eggs small but visible to naked eye. Milt whitish, somewhat bloodshot, same size as ovaries, but still thin and knife-shaped.

Stage III. Sexual organs swollen, occupying about half of ventral cavity.

Stage IV. Ovaries and testes nearly filling 2/3 of ventral cavity. Eggs not transparent, milt whitish, swollen.

Stage V. Sexual organs filling ventral cavity. Ovaries with some large transparent eggs. Milt white, not yet running.

Stage VI. Roe and milt running (spawning).

Stage VII. Spents. Ovaries slack with residual eggs. Testes baggy, bloodshot. Doubtful cases are indicated by quoting two stages e.g. "St. I-II, St. VII-II," etc.

8. Numbers and species of fish taken by dip net, table 15. There is shown, by family, the genera and species taken. Numbers of specimens from each station are given in parentheses, followed by the approximate size or size range of standard length, in millimeters.

ACKNOWLEDGMENTS

Acknowledgment is made to the following agencies and individuals for contributions in securing and processing the material presented. To the Navy Hydrographic Office for their cooperation in planning and executing the field program and for processing the physical oceanographic data. To the Office of Naval Research, and Dr. Sidney R. Galler in particular, for help in planning and executing the field program. To the Georgia Game and Fish Commission for their cooperation in the biological and chemical studies; through Frank T. Knapp, biologist, and Joseph E. Moore, chemist (now a member of Fish and Wildlife Service staff). To Dean F. Bumpus of the Woods Hole Oceanographic Institution for preparation of the salinity, temperature, anddensity profiles which appear as figures 5-20.

From our own staff special recognition is due: Frederick H. Berry for identification of dip-net and stomach content material; Hugh M. Fields, Donald Moore, Louis E. Vogele, and Melba C. Wilson for the plankton organism identifications and counts; Edward Cohen (formerly chemist) for chemical determinations; and Joseph E. Moore for assistance in assembling the physical and chemical data. We also appreciate the assistance of other members of the staff who aided in one way or another: Charles P. Goodwin, Herbert R. Gordy, Jayne Buchanan, Mary E. Cobb, and E. Reid Poe. Acknowledgment is made of the excellent cooperation of crew members of the M/V Theodore N. Gill and Captain Mauritz C. Fredricksen in particular.

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Table 1.--Compass direction conversion table for wind, sea, and swell directions

Code	Direction
00	Calm
01	5° to 14°
02	15° to 24° NNE
03	25° to 34°
04	35° to 44°
05	45° to 54° NE
06	55° to 64°
07	65° to 74° ENE
08	75° to 84°
09	85° to 94° E
10	95° to 104°
11	105° to 114° ESE
12	115° to 124°
13	125° to 134°
14	135° to 144° SE
15	145° to 154°
16	155° to 164° SSE
17	165° to 174°
18	175° to 184° S
19	185° to 194°
20	195° to 204° SSW
21	205° to 214°
22	215° to 224°
23	225° to 234° SW
24	235° to 244°
25	245° to 254° WSW
26	255° to 264°
27	265° to 274° W
28	275° to 284°
29	285° to 294° WNW
30	295° to 304°
31	305° to 314°
32	315° to 324° NW
33	325° to 334°
34	335° to 344° NNW
35	345° to 354°
36	355° to 4° N

TABLE II NUMERICAL WEATHER CODES—PRESENT WEATHER

00 Cloud development NOT observed or NOT observable during past hour.	**01** Clouds generally dissolving or becoming less developed during past hour.	**02** State of sky on the whole unchanged during past hour.	**03** Clouds generally forming or developing during past hour.	**04** Visibility reduced by smoke.	**05** Haze.	**06** Widespread dust in suspension in the air, NOT raised by wind, at time of observation.	**07** Dust or sand raised by wind, at time of observation.	**08** Well developed dust devil(s) within past hour.	**09** Duststorm or sandstorm within sight of or at station during past hour.
10 Light fog.	**11** Patches of shallow fog at station, NOT deeper than 6 feet on land.	**12** More or less continuous shallow fog at station, NOT deeper than 6 feet on land.	**13** Lightning visible, no thunder heard.	**14** Precipitation within sight, but NOT reaching the ground.	**15** Precipitation within sight, reaching the ground, but distant from station.	**16** Precipitation within sight, reaching the ground, near to but NOT at station.	**17** Thunder heard, but no precipitation at the station.	**18** Squall(s) within sight during past hour.	**19** Funnel cloud(s) within sight during past hour
20 Drizzle (NOT freezing and NOT falling as showers) during past hour, but NOT at time of ob.	**21** Rain (NOT freezing and NOT falling as showers) during past hour, but NOT at time of ob.	**22** Snow (NOT falling as showers) during past hour, but NOT at time of observation.	**23** Rain and snow (NOT falling as showers) during past hour, but NOT at time of observation.	**24** Freezing drizzle or freezing rain (NOT falling as showers) during past hour, but NOT at time of observation.	**25** Showers of rain during past hour, but NOT at time of observation.	**26** Showers of snow, or of rain and snow, during past hour, but NOT at time of observation.	**27** Showers of hail, or of hail and rain, during past hour, but NOT at time of observation	**28** Fog during past hour, but NOT at time of observation.	**29** Thunderstorm (with or without precipitation) during past hour but NOT at time of observation
30 Slight or moderate duststorm or sandstorm has decreased during past hour.	**31** Slight or moderate duststorm or sandstorm no appreciable change during past hour.	**32** Slight or moderate duststorm or sandstorm has increased during past hour.	**33** Severe duststorm or sandstorm, has decreased during past hour.	**34** Severe duststorm or sandstorm, no appreciable change during past hour.	**35** Severe duststorm or sandstorm, has increased during past hour.	**36** Slight or moderate drifting snow, generally low.	**37** Heavy drifting snow, generally low.	**38** Slight or moderate drifting snow, generally high	**39** Heavy drifting snow generally high
40 Fog at distance at time of observation, but NOT at station during past hour.	**41** Fog in patches.	**42** Fog, sky discernible, has become thinner during past hour.	**43** Fog, sky NOT discernible, has become thinner during past hour.	**44** Fog, sky discernible, no appreciable change during past hour.	**45** Fog, sky NOT discernible no appreciable change during past hour.	**46** Fog, sky discernible, has begun or become thicker during past hour.	**47** Fog, sky NOT discernible, has begun or become thicker during past hour.	**48** Fog, depositing rime, sky discernible.	**49** Fog, depositing rime, sky not discernible
50 Intermittent drizzle (NOT freezing) slight at time of observation.	**51** Continuous drizzle (NOT freezing) slight at time of observation.	**52** Intermittent drizzle (NOT freezing) moderate at time of ob.	**53** Continuous drizzle (NOT freezing), moderate at time of ob.	**54** Intermittent drizzle (NOT freezing), thick at time of observation.	**55** Continuous drizzle (NOT freezing), thick at time of observation.	**56** Slight freezing drizzle.	**57** Moderate or thick freezing drizzle.	**58** Drizzle and rain, slight.	**59** Drizzle and rain moderate or heavy
60 Intermittent rain (NOT freezing), slight at time of observation.	**61** Continuous rain (NOT freezing), slight at time of observation.	**62** Intermittent rain (NOT freezing), moderate at time of ob.	**63** Continuous rain (NOT freezing), moderate at time of observation.	**64** Intermittent rain (NOT freezing), heavy at time of observation.	**65** Continuous rain (NOT freezing), heavy at time of observation.	**66** Slight freezing rain.	**67** Moderate or heavy freezing rain.	**68** Rain or drizzle and snow, slight.	**69** Rain or drizzle and snow, moderate or heavy
70 Intermittent fall of snowflakes, slight at time of observation.	**71** Continuous fall of snowflakes, slight at time of observation.	**72** Intermittent fall of snowflakes, moderate at time of observation.	**73** Continuous fall of snowflakes, moderate at time of observation.	**74** Intermittent fall of snowflakes, heavy at time of observation.	**75** Continuous fall of snowflakes, heavy at time of observation.	**76** Ice needles (with or without fog).	**77** Granular snow (with or without fog).	**78** Isolated starlike snow crystals (with or without fog).	**79** Ice pellets (sleet, U. S. definition).
80 Slight rain shower(s).	**81** Moderate or heavy rain shower(s).	**82** Violent rain shower(s).	**83** Slight shower(s) of rain and snow mixed.	**84** Moderate or heavy shower(s) of rain and snow mixed.	**85** Slight snow shower(s).	**86** Moderate or heavy snow shower(s).	**87** Slight shower(s) of soft or small hail with or without rain or rain and snow mixed.	**88** Moderate or heavy shower(s) of soft or small hail with or without rain or rain and snow mixed.	**89** Slight shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder
90 Moderate or heavy shower(s) of hail, with or without rain or rain and snow mixed, not associated with thunder.	**91** Slight rain at time of ob.; thunderstorm during past hour, but NOT at time of observation.	**92** Moderate or heavy rain at time of ob.; thunderstorm during past hour, but NOT at time of observation.	**93** Slight snow or rain and snow mixed or hail at time of observation.; thunderstorm during past hour, but not at time of observations.	**94** Mod. or heavy snow, or rain and snow mixed or hail at time of ob.; thunderstorm during past hour, but NOT at time of observation.	**95** Slight or mod. thunderstorm without hail, but with rain and/or snow at time of observation.	**96** Slight or moderate thunderstorm, with hail at time of observation.	**97** Heavy thunderstorm, without hail, but with rain and/or snow at time of observation.	**98** Thunderstorm combined with duststorm or sandstorm at time of observation.	**99** Heavy thunderstorm with hail at time of observation

Table 2.--Numerical weather codes--present weather

Table 3.--Cloud type

Code	
0	Stratus or Fractostratus
1	Cirrus
2	Cirrostratus
3	Cirrocumulus
4	Altocumulus
5	Altostratus
6	Stratuscumulus
7	Nimbostratus
8	Cumulus or Fractocumulus
9	Cumulonumbus

Table 4.--Cloud amount

Code	
0	No clouds
1	Less than 1/10 or 1/10
2	2/10 and 3/10
3	4/10
4	5/10
5	6/10
6	7/10 and 8/10
7	9/10 and 9/10 plus
8	10/10
9	Sky obscured

Table 5.--Sea amount

Code	Approximate Height (feet)	Description
0	------	Calm
1	Less than 1	Smooth
2	1 to 3	Slight
3	3 to 5	Moderate
4	5 to 8	Rough
5	8 to 12	Very rough
6	12 to 20	High
7	20 to 40	Very high
8	40 and over	Mountainous
9	------	Very rough confused sea

Table 6.--Swell amount

Code	Approximate Height (feet)	Description		Approximate Length (feet)
0	----	No swell		----
1	1 to 6	Low swell	Short or Average	0 to 600
2			Long	Above 600
3	6 to 12	Moderate	Short	0 to 300
4			Average	300 to 600
5			Long	Above 600
6	Greater than 12	High	Short	0 to 300
7			Average	300 to 600
8			Long	Above 600
9	----	Confused		----

Table 7. Visibility

Code		
0	Dense fog	50 yards
1	Thick fog	200 yards
2	Fog	400 yards
3	Moderate fog	1000 yards
4	Thin fog or mist	1 mile
5	Visibility poor	2 miles
6	Visibility moderate	5 miles
7	Visibility good	10 miles
8	Visibility very good	30 miles
9	Visibility excellent	Over 30 miles

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Table 8.--Plankton volumes (Gulf III and silk half-meter nets)

Sta.	Position N. Lat.	Position W. Long.	(1954) Date	Time (EST) Start	Time (EST) End	Vol. water strained (m^3)	Depth of haul in meters	Vol. per m^3 strained (ml)
1	27°00'	79°18'	June 22	0354	0426	253.0	0-65	0.059
2	27°01'	79°40'	June 23	0749	0820	261.0	0-65	0.096
3	27°00'	80°04'	June 23	1026	1047	117.1	0-8	0.085
4	27°20'	80°04'	June 23	1259	1320	125.5	0-13	0.358
5	27°40'	80°04'	June 23	1541	1603	138.0	0-17	0.275
6	27°39'	79°42'	June 23	1925	2000	247.5	0-69	0.069
7	27°40'	79°18'	June 23-24	2353	0029	295.4	0-69	0.068
8	28°19'	79°26'	June 24	0805	0837	222.5	0-69	0.045
9	28°20'	79°48'	June 24	1118	1148	239.7	0-73	0.062
10	28°20'	80°10'	June 24	1401	1424	98.5	0-17	0.203
11	28°20'	80°33'	June 24	1651	1712	122.6	0-4	0.326
12	28°41'	80°25'	June 24	2000	2022	106.9	0-9	0.187
13	29°00'	80°32'	June 24	2234	2256	87.7	0-10	0.308
14	29°00'	80°10'	June 25	0122	0146	62.1	0-34	0.483
15	28°59'	79°48'	June 25	0535	0607	286.2	0-65	0.045
16	29°00'	79°26'	June 25	0943	1014	244.2	0-73	0.061
17	29°38'	79°36'	June 25	1439	1510	258.0	0-65	0.058
18	29°40'	80°00'	June 25	1834	1907	245.5	0-69	0.110
19	29°40'	80°22'	June 25	2148	2209	191.1	0-10	0.078
20	29°40'	80°45'	June 26	0027	0048	64.6	0-15	0.418
21	29°40'	81°08'	June 26	0246	0308	75.4	0-10	0.358
22	30°01'	81°14'	June 26	0542	0604	58.3*	0-5	0.686*
23	30°20'	81°20'	June 26	0828	0851	152.9	0-5	0.229
24	30°20'	80°58'	June 26	1106	1127	113.3	0-7	0.353
25	30°20'	80°36'	June 26	1350	1417	137.2	0-9	0.146
26	30°20'	80°12'	June 26	1701	1733	142.4	0-69	0.176
27	30°20'	79°50'	June 26	2105	2137	222.6	0-69	0.045
28	30°21'	79°26'	June 27	0035	0107	239.3	0-65	0.104
29	30°58'	79°14'	June 27	0526	0558	159.5	0-177	0.063
30	30°58'	79°38'	June 27	1129	1202	198.4	0-106	0.050
31	31°00'	80°00'	June 27	1512	1533	107.8	0-16	0.139
32	31°00'	80°23'	June 27	1747	1810	78.3	0-15	0.192
33	31°00'	80°46'	June 27	2122	2151	126.6	0-8	0.197
34	31°00'	81°08'	June 28	0001	0023	61.1	Surface	0.818
35	31°21'	80°53'	July 2	0113	0135	140.2	0-14	0.428
36	31°42'	80°36'	July 2	0429	0451	74.2	0-9	0.404
37	31°38'	80°15'	July 2	0731	0753	110.0	0-17	0.318
38	31°36'	79°52'	July 2	1023	1043	94.0	0-20	0.213
39	31°32'	79°28'	July 2	1337	1367	131.8	0-69	0.190
40	31°28'	78°43'	July 2	1816	1848	258.8	0-65	0.058
41	31°43'	79°00'	July 2-3	2353	0025	200.0	0-65	0.090

* Questioned value

Table 8.--Plankton volumes (Gulf III and silk half-meter nets), cont'd

Sta.	Position N. Lat.	W. Long.	(1954) Date	Time (EST) Start	End	Vol. water strained (m^3)	Depth of haul in meters	Vol. per m^3 strained (ml)
42	31°58'	79°16'	July 3	0343	0415	121.5	0-69	0.412
43	32°12'	79°33'	July 3	0651	0712	104.2	0-14	0.240
44	32°26'	79°48'	July 3	0924	0946	261.0	0-9	0.172
45	32°40'	79°32'	July 3	1138	1159	56.0	0-10	0.804
46	32°54'	79°16'	July 3	1414	1436	51.9	0-5	0.385
47	32°40'	79°00'	July 3	1705	1726	195.3	0-11	0.102
48	32°26'	78°43'	July 3	2037	2109	137.4	0-82	0.364
49	32°10'	78°28'	July 4	0016	0047	162.4	0-69	0.277
51	32°20'	77°33'	July 4	0833	0906	127.8	0-77	0.509
52	32°35'	77°47'	July 4	1203	1234	185.6	0-86	0.269
53	32°49'	78°04'	July 4	1513	1545	152.9	0-77	0.242
54	33°03'	78°21'	July 4	1822	1843	104.7	0-15	0.239
55	33°18'	78°38'	July 4	2110	2132	76.6	0-10	0.196
56	33°32'	78°54'	July 5	1203	1224	126.7	Surface	0.276
57	33°34'	78°24'	July 5	0315	0337	118.0	0-10	0.551
58	33°36'	77°54'	July 5	0638	0701	151.1	0-10	0.265
59	33°22'	77°38'	July 5	0931	0952	149.8	0-15	0.134
60	33°08'	77°20'	July 5	1302	1334	209.8	0-73	0.110
61	32°54'	77°03'	July 5	1653	1724	296.5	0-86	0.050
62	32°40'	76°46'	July 5	2112	2143	241.9	0-65	0.186
63	33°13'	76°24'	July 6	0137	0208	191.0	0-86	0.026
64*	33°28'	76°39'	July 6	0546	0615	**	0-102	-
65	33°43'	76°56'	July 7	1436	1458	160.2	0-18	0.156
66	33°57'	77°13'	July 7	1725	1747	202.2	0-15	0.099
67	34°11'	77°30'	July 7	2013	2034	147.4	Surface	0.339
68	34°21'	77°09'	July 7	2255	2315	123.1	Surface	0.203
69	34°32'	76°49'	July 10	0624	0645	128.2	0-5	0.273
70	34°18'	76°32'	July 10	0911	0937	105.4	0-15	0.237
71	34°04'	76°14'	July 10	1237	1308	167.7	0-77	0.119
72	33°50'	75°59'	July 10	1645	1716	224.1	0-66	0.134
73	34°10'	75°20'	July 11	0013	0043	253.7	0-62	0.059
74	34°24'	75°36'	July 11	0428	0459	217.2	0-70	0.092
76	34°53'	76°10'	July 12	0010	0032	95.4	Surface	0.367
77	35°01'	75°45'	July 11	2122	2142	102.6	Surface	0.438
78	35°06'	75°20'	July 11	1819	1839	129.0	Surface	0.155
79	34°53'	75°04'	July 11	1453	1523	219.7	0-73	0.046
80	34°39'	74°48'	July 11	1112	1142	**	0-109	-
Spc.5	30°00'	77°00'	June 10	2042	2114	215.4	0-82	0.046
Spc.6	29°00'	77°00'	June 11	0717	0749	243.8	0-77	0.041
Spc.7	28°07'	76°32'	June 11	1622	1654	249.0	0-86	0.020
Spc.8	28°00'	78°00'	June 12	0320	0351	255.3	0-60	0.059
Spc.9	27°57'	79°00'	June 24	0328	0358	219.6	0-69	0.091

* No. 1 silk half-meter net
** No water volume determined

Table 9.--Plankton volumes (Gulf IA High-speed sampler)

Tow No.	Position of ship at center of tow: N. Lat.	W. Long.	(1954) Date	Time (EST) Start	End	Vol. water strained (m^3)	Vol. per m^3 strained (ml)
1	27°01'	79°28'	June 23	0427	0634	25.0	0.080
2	27°00'	79°53'	June 23	0825	0940	13.3	0.677
3	27°10'	80°03'	June 23	1050	1220	15.8	0.190
4	27°29'	80°06'	June 23	1322	1500	17.7	0.282
5	27°40'	79°53'	June 23	1606	1806	21.7	0.138
6	27°46'	79°31'	June 23	1957	2158	23.1	0.043
7	27°51'	79°09'	June 24	0032	0210	18.7	0.107
8	28°05'	79°15'	June 24	0358	0615	27.2	0.037
9	28°20'	79°36'	June 24	0837	1004	16.0	0.062
10	28°22'	79°57'	June 24	1150	1313	15.0	0.133
11	28°21'	80°19'	June 24	1427	1545	13.8	0.145
12	28°28'	80°24'	June 24	1715	1925	23.3	0.086
13	28°49'	80°28'	June 24	2025	2150	15.0	0.333
14	29°00'	80°24'	June 24-25	2258	0040	17.1	0.292
15	28°59'	80°00'	June 25	0148	0355	22.0	0.273
16	29°02'	79°38'	June 25	0608	0740	17.2	0.058
17	29°24'	79°34'	June 25	1135	1305	17.7	0.056
18	29°39'	79°47'	June 25	1512	1655	19.1	0.052
19	29°45'	80°11'	June 25	1907	2050	20.4	0.245
20	29°41'	80°32'	June 25	2215	2345	15.7	0.318
21	29°40'	80°54'	June 26	0050	0208	12.7	0.472
22	29°49'	81°09'	June 26	0310	0505	19.6	0.357
23	30°09'	81°16'	June 26	0610	0730	13.8	0.145
24	30°19'	81°09'	June 26	0853	1025	16.2	0.741
25	30°19'	80°47'	June 26	1130	1305	16.0	0.312
26	30°20'	80°24'	June 26	1420	1550	16.1	0.124
27	30°20'	80°00'	June 26	1735	1925	18.9	0.212
28	30°24'	79°36'	June 26	2140	2325	19.9	0.100
29	30°41'	79°19'	June 27	0112	0345	26.8	0.149
30	30°57'	79°21'	June 27	0602	0950	37.4	0.053
31	31°01'	79°45'	June 27	1205	1419	22.8	0.088
32	31°00'	80°11'	June 27	1535	1710	14.9	0.268
33	30°59'	80°31'	June 27	1813	2025	22.8	0.307
34	31°00'	80°58'	June 27	2155	2315	14.8	0.405
35	31°30'	80°45'	July 2	0140	0350	21.4	0.701
36	31°39'	80°28'	July 2	0454	0638	19.6	0.204
37	31°38'	80°04'	July 2	0756	0935	16.3	0.307
38	31°32'	79°39'	July 2	1045	1210	15.0	0.133
39	31°31'	79°05'	July 2	1411	1655	28.8	0.035
40	31°36'	78°46'	July 2	1850	2150	35.0	0.086
41	31°53'	79°02'	July 3	0027	0250	23.6	0.763
42	32°06'	79°21'	July 3	0418	0606	18.2	0.220
43	32°18'	79°40'	July 3	0715	0830	13.0	0.538
44	32°31'	79°39'	July 3	0950	1050	11.6	0.259

Table 9.--Plankton volumes (Gulf IA High-speed sampler), cont'd

Tow No.	Position of ship at center of tow: N. Lat.	W. Long.	(1954) Date	Time (EST) Start	End	Vol. water strained (m^3)	Vol. per m^3 strained (ml)
45	32°47'	79°24'	July 3	1205	1335	15.3	0.523
46	32°48'	79°08'	July 3	1440	1620	16.8	0.178
47	32°33'	78°52'	July 3	1728	1917	18.1	0.221
48	32°18'	78°35'	July 3	2112	2255	21.7	0.092
49	32°03'	78°18'	July 4	0049	0240	20.0	0.150
50	32°07'	77°46'	July 4	0430	0735	31.0	0.064
51	32°26'	77°39'	July 4	0910	1047	15.5	0.064
52	32°39'	77°55'	July 4	1237	1405	16.2	0.864
53	32°55'	78°11'	July 4	1550	1735	18.8	0.213
54	33°10'	78°28'	July 4	1850	2027	18.5	0.162
55	33°25'	78°46'	July 4	2135	2325	17.5	0.514
56	33°32'	78°40'	July 5	0028	0230	20.8	0.481
57	33°35'	78°10'	July 5	0340	0555	22.0	0.591
58	33°30'	77°46'	July 5	0705	0845	17.3	0.173
59	33°17'	77°29'	July 5	0955	1130	17.1	0.117
60	33°01'	77°10'	July 5	1335	1525	18.2	0.055
61	32°48'	76°55'	July 5	1727	1940	21.0	0.190
62	32°57'	76°35'	July 5	2148	2400	21.1	0.190
63	33°51'	77°03'	July 7	1505	1645	15.5	0.129
64	34°01'	77°19'	July 7	1750	1925	17.9	0.056
65	34°15'	77°21'	July 7	2037	2215	16.2	0.247
66	34°25'	76°41'	July 10	0647	0820	15.5	0.194
67	34°11'	76°25'	July 10	0945	1125	16.6	0.181
68	33°58'	76°05'	July 10	1310	1515	20.6	0.146
69	34°02'	75°41'	July 10	1717	2030	36.0	0.111
70	34°21'	75°26'	July 11	0045	0155	13.0	0.154
71	34°35'	75°12'	July 11	0503	0830	34.7	0.029
72	34°46'	74°53'	July 11	1140	1330	16.4	0.061
74	35°03'	75°31'	July 11	1845	2040	20.2	0.346
75	34°54'	75°58'	July 11	2145	2350	22.1	0.090

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net)

Station Number	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5	Reg. 6	Reg. 7	Reg. 8
Protozoa	344.4	197.4	240.8	251.7	322.6	209.0	417.0	375.4
Coelenterata	9.2	9.2	1.0	42.2	35.3	8.1	7.4	3.6
Chaetognatha	6.6	47.9	43.4	89.5	43.0	13.0	7.9	9.5
Misc. Worms	4.1	2.4	2.6	2.1	5.8	3.2	1.6	2.4
Copepoda	110.6	212.8	61.6	567.6	416.3	163.6	134.2	127.7
Ostracoda	4.8	2.6	-	3.3	1.3	2.4	4.7	1.8
Mysidacea	-	0.3	0.2	-	-	-	0.1	0.3
Amphipoda	1.2	2.8	0.2	13.1	5.8	2.3	0.9	0.6
Isopoda	0.1	0.1	0.2	-	0.1	-	-	<0.1
Stomatopoda	0.3	0.1	0.7	7.3	0.9	-	0.1	-
Euphausiacea	6.7	4.4	-	0.8	2.6	5.4	7.2	4.2
Shrimp	1.5	1.8	47.1	228.0	58.4	2.3	1.5	0.4
Crabs	0.9	0.8	16.0	38.8	11.6	0.5	1.2	1.0
Misc. Crustaceans	0.7	0.6	7.8	28.7	2.0	1.8	0.2	0.8
Pteropoda	0.6	1.2	-	2.7	3.0	2.4	0.9	1.3
Misc. Mollusca	3.7	2.7	0.3	4.5	7.1	5.6	2.5	2.7
Larvacea	72.1	60.9	372.9	138.5	187.4	49.7	100.5	135.3
Misc. Tunicata	2.4	2.4	-	1.4	3.2	2.9	1.6	1.6
Leptocardia	0.03	<0.01	155.76	0.51	0.06	<0.01	0.04	0.01
Misc. Organisms	2.4	6.8	1571.4*	116.6	43.0	19.7	17.2	6.2
Subtotal	572.3	557.2	2522.0	1537.3	1149.5	491.9	706.7	674.9
Fish Eggs	0.07	0.02	6.02	8.45	2.80	0.02	0.02	0.02
Fish Larvae	1.02	1.09	4.07	5.23	4.56	0.87	1.60	1.16
Total	573.4	558.3	2532.0	1551.0	1156.8	492.8	708.4	676.1

* Mostly echinoderms

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 9	Reg. 10	Reg. 11	Reg. 12	Reg. 13	Reg. 14	Reg. 15	Reg. 16
Protozoa	385.6	568.2	70.9	166.6	142.6	242.4	251.1	310.8
Coelenterata	9.6	12.0	3.6	3.6	8.0	10.6	3.8	4.4
Chaetognatha	18.6	11.8	141.8	103.1	28.7	15.1	8.1	2.9
Misc. Worms	2.7	2.2	1.3	12.3	0.9	0.6	1.0	1.6
Copepoda	165.4	314.2	214.4	234.0	425.4	242.4	91.8	143.2
Ostracoda	1.7	0.2	4.1	0.9	45.9	0.3	1.1	2.7
Mysidacea	-	-	-	9.7	3.9	1.6	-	-
Amphipoda	2.5	3.4	2.3	2.4	14.4	4.5	0.7	1.2
Isopoda	-	-	-	0.2	0.2	-	0.2	-
Stomatopoda	-	0.6	4.1	1.1	3.6	2.6	0.1	-
Euphausiacea	4.8	2.2	-	-	-	0.3	2.6	4.5
Shrimp	1.0	4.7	72.6	241.9	212.7	30.6	2.9	1.5
Crabs	0.2	9.7	133.1	44.3	30.3	13.5	1.0	0.4
Misc. Crustaceans	0.6	5.7	368.3	325.2	120.9	1.9	0.8	0.3
Pteropoda	0.9	8.9	2.8	-	22.1	2.6	0.8	0.7
Misc. Mollusca	3.5	3.4	69.2	7.5	5.9	5.8	1.7	1.5
Larvacea	67.2	206.6	55.3	325.2	386.8	170.7	86.7	69.4
Misc. Tunicata	2.3	2.2	-	-	4.8	35.7	1.0	1.7
Leptocardia	-	-	1.75	6.48	0.28	0.02	<0.01	-
Misc. Organisms	5.9	64.6	664.0*	3.0**	768.7*	327.7*	49.6	2.7
Subtotal	672.5	1220.6	1809.6	1487.5**	2226.1	1108.9	505.0	549.5
Fish Eggs	<0.01	1.04	0.85	2.80	19.98	2.96	0.14	0.01
Fish Larvae	0.88	5.70	4.54	1.06	12.29	4.17	1.13	0.83
Total	673.4	1227.3	1815.0	1491.4**	2258.4	1116.0	506.3	550.3

* Mostly echinoderms
** Numerous echinoderms, numbers not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 17	Reg. 18	Reg. 19	Reg. 20	Reg. 21	Reg. 22	Reg. 23	Reg. 24
Protozoa	408.4	397.2	113.2	344.6	253.0	94.5	312.0	338.7
Coelenterata	6.7	8.5	2.9	3.1	20.7	28.8	1.6	2.6
Chaetognatha	7.4	8.6	3.6	183.8	104.0	149.1	59.6	48.6
Misc. Worms	2.6	3.2	0.4	0.3	1.1	3.4	3.5	0.4
Copepoda	173.4	187.4	140.9	669.5	548.3	920.0	325.8	82.3
Ostracoda	4.3	1.0	0.3	32.2	1.6	1.7	0.4	-
Mysidacea	-	-	2.3	1.2	10.3	-	-	-
Amphipoda	1.2	2.0	1.9	40.9	40.0	0.3	-	4.2
Isopoda	-	0.2	0.1	-	-	-	-	-
Stomatopoda	0.1	0.1	1.6	4.0	3.2	11.7	2.2	43.0
Euphausiacea	5.0	5.7	0.6	-	-	-	0.1	-
Shrimp	0.6	0.7	7.1	308.5	163.1	40.8	69.3	35.6
Crabs	0.5	0.6	3.9	33.4	81.5	240.0	55.5	80.4
Misc. Crustaceans	1.1	0.7	0.3	390.5	269.9	232.7	3.0	0.5
Pteropoda	0.8	2.0	0.3	128.0	20.7	0.3	-	0.7
Misc. Mollusca	2.6	3.0	1.0	10.5	11.1	44.9	2.1	6.4
Larvacea	87.1	61.3	83.2	554.6	337.4	352.7	80.4	50.5
Misc. Tunicata	1.7	1.0	2.8	82.0	6.6	0.3	-	0.9
Leptocardia	<0.01	<0.01	-	1.52	5.48	15.33	0.03	-
Misc. Organisms	20.5	5.8	4.3	164.1	64.7**	3.1**	583.7*	101.0
Subtotal	724.0	689.0	370.7	2952.7	1942.7**	2139.6**	1499.2	795.8
Fish Eggs	0.07	0.02	2.00	22.37	27.45	22.78	3.23	11.76
Fish Larvae	1.07	1.01	1.38	17.41	7.66	4.60	0.58	3.20
Total	725.1	690.0	374.1	2992.5	1977.8**	2167.0**	1503.0	810.8

* Mostly echinoderms
** Numerous echinoderms, numbers not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 25	Reg. 26	Reg. 27	Reg. 28	Reg. 29	Reg. 30	Reg. 31	Reg. 32
Protozoa	122.1	229.3	244.8	361.4	325.6	162.4	133.7	330.3
Coelenterata	3.6	8.7	3.8	9.7	4.5	3.3	9.3	5.1
Chaetognatha	15.4	10.1	4.0	7.5	7.9	9.4	13.2	53.1
Misc. Worms	0.1	1.8	1.9	2.2	1.4	0.6	0.7	-
Copepoda	177.7	244.2	119.0	151.5	105.0	89.8	173.1	319.5
Ostracoda	0.1	3.2	6.3	7.9	1.0	2.0	-	0.5
Mysidacea	-	-	-	-	-	-	-	-
Amphipoda	2.5	4.2	0.7	1.2	0.9	1.7	2.8	7.2
Isopoda	0.1	0.3	0.1	-	0.2	-	0.2	-
Stomatopoda	6.6	1.0	0.1	-	-	0.1	2.6	3.8
Euphausiacea	-	2.8	4.8	6.4	4.3	3.3	3.7	-
Shrimp	1.2	3.4	1.9	0.9	0.9	0.6	1.5	7.7
Crabs	7.7	3.8	0.4	0.4	1.1	0.1	9.3	9.2
Misc. Crustaceans	0.1	1.5	0.8	0.8	0.8	1.0	0.4	0.2
Pteropoda	0.3	2.1	1.6	1.4	0.4	1.0	0.4	6.4
Misc. Mollusca	1.9	2.4	1.9	4.3	2.6	1.8	2.0	1.3
Larvacea	86.5	137.0	56.2	71.8	87.7	13.2	182.9	165.2
Misc. Tunicata	134.4	5.6	0.9	2.6	0.6	1.5	9.8	7.9
Leptocardia	-	0.02	0.02	0.02	0.01	< 0.01	-	-
Misc. Organisms	6.4	12.6	4.4	2.0	2.6	5.2	5.8	8.4
Subtotal	566.7	674.0	453.6	632.0	547.5	297.0	551.4	925.8
Fish Eggs	5.48	0.23	0.02	0.01	0.04	< 0.01	1.35	3.87
Fish Larvae	0.86	2.23	1.27	1.03	0.98	0.46	2.36	5.17
Total	573.0	676.5	454.9	633.0	548.5	297.5	555.1	934.8

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 33	Reg. 34	Reg. 35	Reg. 36	Reg. 37	Reg. 38	Reg. 39	Reg. 40
Protozoa	73.7	*	*	320.0	133.0	225.5	241.3	228.5
Coelenterata	1.7	5.6	2.4	5.1	1.3	4.5	8.0	5.6
Chaetognatha	97.1	27.5	84.7	26.4	144.5	6.8	11.7	10.0
Misc. Worms	-	3.3	-	0.5	0.2	0.2	1.4	2.6
Copepoda	254.5	523.9	337.2	640.0	192.7	272.9	212.3	115.5
Ostracoda	62.0	4.2	8.6	100.0	200.4	0.4	3.5	2.8
Mysidacea	5.5	52.0	15.3	9.7	1.1	-	-	-
Amphipoda	72.0	12.8	62.0	30.7	4.7	1.5	2.4	1.8
Isopoda	0.5	0.6	1.0	0.3	-	-	-	0.1
Stomatopoda	7.9	3.6	9.0	5.4	4.0	3.0	1.5	-
Euphausiacea	-	-	-	-	-	-	2.3	5.0
Shrimp	140.7	104.1	257.1	317.1	17.6	2.3	2.7	0.7
Crabs	19.3	79.8	49.9	94.3	26.4	21.3	3.6	0.4
Misc. Crustaceans	2.5	93.7	3.0	0.3	0.2	0.4	1.2	0.5
Pteropoda	7.6	1.0	-	0.8	2.4	0.2	3.2	1.4
Misc. Mollusca	19.6	8.5	11.0	3.5	2.9	2.3	6.5	4.2
Larvacea	194.2	353.9	69.6	268.6	339.2	187.2	144.8	81.1
Misc. Tunicata	3.0	2.3	48.4	271.4	34.7	4.7	2.6	2.1
Leptocardia	0.07	0.08	3.17	2.74	0.12	-	0.02	0.01
Misc. Organisms	95.4	69.4	54.4	217.1	133.0	3.4	5.6	23.8
Subtotal	1057.3	1346.3	1016.8	2313.9	1238.4	736.6	654.6	486.1
Fish Eggs	11.25	24.89	2.88	9.65	5.48	2.41	0.40	0.01
Fish Larvae	4.42	16.04	2.18	4.72	7.45	3.84	1.94	1.07
Total	1073.0	1387.2	1021.9	2328.3	1251.3	742.8	656.9	487.2

* Numerous radiolaria, few other protozoa, numbers not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 41	Reg. 42	Reg. 43	Reg. 44	Reg. 45	Reg. 46	Reg. 47	Reg. 48
Protozoa	176.0	233.8	205.5	-	2010.2	1.9	95.5	270.0
Coelenterata	5.2	2.8	4.6	0.5	1.8	10.4	2.6	1.9
Chaetognatha	5.6	15.8	27.6	86.9	174.1	89.9	29.3	18.5
Misc. Worms	1.5	1.3	0.4	0.1	1.1	7.7	0.4	0.9
Copepoda	179.1	270.4	465.9	233.9	1060.0	1441.9	209.5	290.1
Ostracoda	6.6	10.0	1.0	1.8	159.0	1.9	-	117.3
Mysidacea	-	-	-	-	-	6.2	-	-
Amphipoda	1.7	4.1	2.7	1.6	42.8	1.9	3.0	2.5
Isopoda	-	0.2	-	0.2	0.7	0.4	-	-
Stomatopoda	0.1	1.2	4.0	8.6	1.8	1.5	4.1	1.0
Euphausiacea	2.4	4.6	0.2	-	-	-	-	1.6
Shrimp	1.1	17.8	4.8	21.9	33.9	74.4	2.2	17.8
Crabs	0.4	9.7	23.2	12.9	193.1	494.2	18.5	14.0
Misc. Crustaceans	1.4	1.5	0.6	0.1	2.5	445.2	0.2	-
Pteropoda	1.4	2.0	0.8	1.4	0.7	-	1.3	1.4
Misc. Mollusca	2.9	1.5	5.6	3.5	11.4	17.3	2.2	8.6
Larvacea	49.8	207.6	252.3	1.8	556.5	563.7	85.8	206.8
Misc. Tunicata	1.6	3.3	3.1	0.9	3.9	16.2	-	2.3
Leptocardia	-	-	-	0.01	0.55	0.10	-	-
Misc. Organisms	8.5	50.6	48.8	2.8	42.5	302.3	63.0	117.3
Subtotal	445.3	838.2	1051.1	378.9	4296.6	3477.1	517.6	1072.0
Fish Eggs	0.06	2.55	3.61	1.98	29.20	18.92	2.11	1.19
Fish Larvae	0.36	45.04	4.67	2.10	7.52	5.09	1.63	2.60
Total	445.7	885.8	1059.4	383.0	4333.3	3501.1	521.3	1075.8

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 49	Reg. 51	Reg. 52	Reg. 53	Reg. 54	Reg. 55	Reg. 56	Reg. 57
Protozoa	349.8	257.1	204.5	282.8	107.3	19.3	11.5	3.6
Coelenterata	3.3	2.7	1.4	5.0	3.2	6.8	5.7	23.6
Chaetognatha	31.3	44.8	42.3	21.8	19.3	60.9	105.4	60.2
Misc. Worms	1.8	1.1	1.9	2.1	0.4	6.8	20.2	12.5
Copepoda	399.4	210.7	188.5	310.6	301.7	465.0	498.6	822.8
Ostracoda	114.9	6.6	5.5	12.0	1.0	72.0	1.6	0.8
Mysidacea	0.2	-	-	-	-	6.5	6.3	5.4
Amphipoda	3.2	2.5	3.4	4.6	3.4	18.8	2.0	6.3
Isopoda	-	0.3	0.1	0.1	0.2	1.3	-	0.3
Stomatopoda	1.1	0.2	0.2	0.3	11.6	1.6	1.7	4.1
Euphausiacea	3.4	2.7	1.9	2.1	0.2	-	-	0.3
Shrimp	8.4	5.0	4.4	6.1	7.4	52.6	85.3	40.2
Crabs	2.3	1.9	0.9	0.8	31.7	10.2	83.7	36.9
Misc. Crustaceans	0.5	1.9	2.0	1.8	-	0.8	42.0	2.4
Pteropoda	3.2	1.6	1.5	3.3	0.6	-	0.2	0.7
Misc. Mollusca	1.4	1.7	1.3	4.3	2.1	0.8	48.5	2.2
Larvacea	198.4	141.0	72.0	205.2	135.7	276.8	80.3	116.8
Misc. Tunicata	3.1	4.7	3.2	5.1	1.7	3.9	2.0	5.1
Leptocardia	-	-	-	-	-	27.09	25.97	0.84
Misc. Organisms	78.3	8.9	8.7	20.3	8.8	30.0	189.1	46.7
Subtotal	1204.0	695.4	543.7	888.3	636.3	1061.2	1210.1	1191.7
Fish Eggs	0.04	1.02	0.73	0.37	16.94	19.99	4.54	4.84
Fish Larvae	1.50	0.84	0.34	0.52	7.18	13.68	12.63	10.09
Total	1205.5	697.3	544.8	889.2	660.4	1094.9	1227.3	1206.6

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 58	Reg. 59	Reg. 60	Reg. 61	Reg. 62	Reg. 63	Reg. 64*	Reg. 65
Protozoa	2.0	94.8	141.5	110.8	112.2	102.1	65720	137.6
Coelenterata	2.9	4.4	6.3	3.6	7.4	4.2	1980	3.0
Chaetognatha	56.1	53.3	29.3	15.0	41.2	7.3	4420	16.2
Misc. Worms	2.2	0.1	1.1	0.3	1.6	0.7	400	0.4
Copepoda	249.7	134.4	241.5	60.1	249.8	71.0	31800	221.0
Ostracoda	1.6	31.1	26.6	7.5	38.6	7.3	900	0.2
Mysidacea	0.7	-	-	-	-	-	-	0.1
Amphipoda	4.5	0.7	1.8	1.1	3.4	0.3	460	1.4
Isopoda	-	-	-	0.1	-	-	-	0.5
Stomatopoda	1.3	6.1	0.8	0.1	1.5	0.1	40	3.0
Euphausiacea	-	0.1	2.8	1.3	4.1	3.0	660	0.4
Shrimp	25.9	3.3	3.8	0.6	4.5	0.3	260	0.4
Crabs	91.2	13.2	2.3	1.1	7.5	0.3	280	2.1
Misc. Crustaceans	189.4	3.5	0.3	0.1	0.4	0.1	160	0.5
Pteropoda	1.0	-	1.4	0.7	2.1	1.5	480	0.7
Misc. Mollusca	7.0	0.7	0.5	0.7	2.9	3.4	400	0.4
Larvacea	44.9	42.4	56.6	8.2	36.8	23.3	8480	41.0
Misc. Tunicata	50.5	0.9	1.9	1.0	7.6	1.5	160	1.0
Leptocardia	0.12	-	<0.01	-	-	<0.01	2	-
Misc. Organisms	133.3	27.0	30.3	12.1	50.0	4.9	3604	41.0
Subtotal	864.3	416.0	548.8	224.4	571.6	231.3	120206	470.9
Fish Eggs	7.97	3.81	1.03	0.02	0.01	0.04	11	4.64
Fish Larvae	5.60	5.38	0.84	0.52	3.44	1.55	155	3.90
Total	877.9	425.2	550.7	224.9	575.0	232.9	120372	479.4

* Total number of organisms in sample, water volume not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 66	Reg. 67	Reg. 68	Reg. 69	Reg. 70	Reg. 71	Reg. 72	Reg. 73
Protozoa	36.7	3.5	8.9	5.6	3.6	271.8	298.9	205.6
Coelenterata	5.7	8.7	6.8	7.8	3.2	3.3	4.8	5.1
Chaetognatha	31.4	47.5	71.2	63.2	22.0	12.8	21.6	13.4
Misc. Worms	0.1	1.4	1.3	0.3	0.2	1.0	0.7	0.9
Copepoda	97.5	238.8	263.5	206.7	152.9	158.0	190.1	86.1
Ostracoda	2.1	34.5	1.3	49.6	2.1	3.4	1.5	6.3
Mysidacea	-	1.5	1.6	-	-	-	-	0.1
Amphipoda	0.2	6.8	2.8	6.7	0.2	3.1	4.0	0.8
Isopoda	-	0.1	0.2	-	-	-	-	-
Stomatopoda	2.1	0.3	0.8	7.2	1.7	-	0.2	0.6
Euphausiacea	-	-	-	-	-	3.7	4.6	2.5
Shrimp	5.8	43.1	9.1	35.6	12.5	1.0	0.7	1.4
Crabs	4.0	7.6	8.8	20.9	10.8	0.1	0.4	0.5
Misc. Crustaceans	-	74.8	105.0	0.8	0.8	0.2	0.4	0.3
Pteropoda	0.5	2.7	-	9.0	0.8	1.1	1.6	0.6
Misc. Mollusca	0.5	5.6	1.9	2.6	6.1	2.0	1.7	2.3
Larvacea	5.5	120.8	89.6	34.7	46.3	91.0	41.6	36.8
Misc. Tunicata	-	10.3	2.1	60.8	60.2	2.0	0.7	0.6
Leptocardia	-	8.99	0.28	0.05	-	-	-	0.07
Misc. Organisms	13.2	30.2	101.6	86.0	13.8	13.1	13.2	4.5
Subtotal	205.3	647.2	676.8	597.6	337.2	567.6	586.7	368.5
Fish Eggs	2.87	5.89	2.51	11.44	5.01	0.50	0.09	0.08
Fish Larvae	8.80	9.63	2.92	6.44	4.38	0.75	0.77	2.38
Total	217.0	662.7	682.2	615.5	346.6	568.8	587.6	371.0

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Reg. 74	Reg. 76	Reg. 77	Reg. 78	Reg. 79	Reg. 80*	Spc. 5	Spc. 6
Protozoa	238.2	122.2	94.9	23.6	189.1	25016	44.3	55.6
Coelenterata	6.3	4.6	11.7	0.8	4.7	860	4.6	2.7
Chaetognatha	11.0	46.5	99.2	29.3	7.5	820	8.9	2.4
Misc. Worms	1.6	2.5	1.4	-	0.7	60	1.1	0.9
Copepoda	83.9	655.6	361.6	139.7	54.0	6148	86.6	44.3
Ostracoda	3.0	3.1	14.8	414.1	1.9	500	7.4	1.3
Mysidacea	-	9.6	9.4	-	-	-	-	-
Amphipoda	1.0	11.9	18.9	2.5	0.5	120	0.5	0.6
Isopoda	0.1	0.4	-	-	-	-	-	-
Stomatopoda	-	0.6	3.7	9.0	-	-	-	-
Euphausiacea	4.7	-	-	0.2	2.1	360	3.8	1.6
Shrimp	0.7	162.2	103.3	5.6	0.6	40	1.7	0.9
Crabs	0.7	29.6	82.6	4.2	0.4	20	0.3	-
Misc. Crustaceans	0.4	6.1	0.4	-	0.4	40	0.8	0.5
Pteropoda	0.8	1.0	8.2	3.2	1.0	40	2.0	1.6
Misc. Mollusca	1.4	25.2	7.8	-	1.4	160	4.2	1.4
Larvacea	47.8	75.6	167.4	126.5	17.6	1380	23.6	8.3
Misc. Tunicata	0.5	1.0	5.3	1.4	0.6	80	0.6	0.3
Leptocardia	< 0.01	-	0.01	-	0.02	-	0.05	-
Misc. Organisms	3.6	131.1	72.3	415.8	3.1	560	25.1	6.2
Subtotal	405.7	1288.8	1062.9	1175.9	285.6	36204	215.6	128.6
Fish Eggs	0.16	31.95	8.78	13.59	0.05	8	0.02	0.38
Fish Larvae	1.02	1.38	1.78	0.43	0.34	83	1.45	0.50
Total	406.9	1322.1	1073.5	1189.9	286.0	36295	217.1	129.5

* Total number of organisms in sample, water volume not determined

Table 10.--Numbers of plankton organisms per cubic meter of water (half-meter net), cont'd

Station Number	Spc. 7	Spc. 8	Spc. 9
Protozoa	15.5	73.1	167.0
Coelenterata	2.8	9.1	3.0
Chaetognatha	2.2	11.7	15.6
Misc. Worms	0.6	2.0	0.6
Copepoda	26.4	122.9	138.0
Ostracoda	3.0	7.4	6.5
Mysidacea	-	0.1	-
Amphipoda	0.2	0.9	0.7
Isopoda	-	-	0.1
Stomatopoda	-	0.2	-
Euphausiacea	1.4	7.2	4.6
Shrimp	0.5	1.5	1.5
Crabs	-	-	0.4
Misc. Crustaceans	1.2	0.5	0.5
Pteropoda	0.2	0.5	0.9
Misc. Mollusca	0.7	3.7	5.2
Larvacea	2.4	58.1	39.6
Misc. Tunicata	0.4	0.4	0.3
Leptocardia	-	0.14	0.05
Misc. Organisms	22.1	53.1	10.5
Subtotal	79.6	352.5	395.0
Fish Eggs	0.09	0.38	-
Fish Larvae	0.71	1.61	2.20
Total	80.4	354.5	397.2

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Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler)

Tow Number	1	2	3	4	5	6	7	8
Protozoa	248.0	390.5	120.8	221.6	412.8	497.9	453.5	467.6
Coelenterata	5.4	10.5	3.2	5.1	4.8	6.7	2.4	1.5
Chaetognatha	8.2	41.7	15.8	24.8	12.2	5.6	5.3	6.4
Misc. Worms	1.0	1.9	0.3	1.1	0.2	0.6	1.1	0.7
Copepoda	116.6	1123.8	218.0	266.5	322.4	88.3	42.5	103.3
Ostracoda	-	3.4	0.3	2.2	0.2	1.1	1.1	0.4
Mysidacea	-	-	-	-	-	-	-	-
Amphipoda	3.0	23.7	2.8	6.5	4.6	1.9	-	0.2
Isopoda	0.2	-	-	-	-	-	-	-
Stomatopoda	0.6	16.5	1.3	5.1	3.4	0.4	-	-
Euphausiacea	1.0	1.1	0.3	1.1	1.4	3.9	2.1	1.3
Shrimp	0.6	454.3	67.1	26.3	15.4	3.9	2.4	1.5
Crabs	0.8	60.9	31.3	21.8	9.0	3.2	2.9	0.9
Misc. Crustaceans	-	1.1	11.4	1.7	2.1	1.1	-	0.6
Pteropoda	1.0	3.0	1.6	3.4	0.7	0.4	1.1	2.6
Misc. Mollusca	3.8	8.6	1.3	3.1	3.4	3.9	4.0	4.2
Larvacea	20.0	45.1	12.6	37.8	14.3	10.4	14.7	5.3
Misc. Tunicata	0.6	4.5	-	2.5	1.2	0.6	-	0.2
Leptocardia	-	-	-	-	-	0.09	-	-
Misc. Organisms	7.8	15.4	144.2	62.9	31.8	2.8	1.9	4.0
Subtotal	418.6	2206.0	632.3	693.5	839.9	632.8	535.0	600.7
Fish Eggs	0.12	5.64	13.35	1.47	2.81	-	0.27	0.26
Fish Larvae	0.24	22.03	0.70	5.48	1.47	0.39	0.27	0.55
Total	419.0	2233.7	646.4	700.4	844.2	633.2	535.5	601.5

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	9	10	11	12	13	14	15	16
Protozoa	573.1	833.9	130.6	40.9	67.1	89.9	715.5	526.9
Coelenterata	0.3	0.7	2.9	1.1	2.7	3.5	3.0	1.7
Chaetognatha	5.6	6.3	15.2	3.4	6.3	4.7	3.9	3.2
Misc. Worms	0.3	-	-	-	1.3	0.6	0.2	-
Copepoda	51.9	37.3	153.6	50.0	190.8	254.2	212.0	92.4
Ostracoda	0.3	-	-	-	3.3	12.0	1.8	0.3
Mysidacea	0.3	0.7	-	-	1.3	1.5	0.2	-
Amphipoda	0.6	0.7	-	0.4	5.0	8.5	1.4	2.0
Isopoda	-	-	-	-	-	-	-	-
Stomatopoda	1.6	-	12.3	0.8	5.3	7.3	1.8	-
Euphausiacea	0.3	-	-	-	-	-	0.7	1.2
Shrimp	1.6	0.3	9.8	8.4	180.2	24.3	5.0	2.0
Crabs	2.2	0.7	153.6	79.6	27.7	26.9	3.9	4.1
Misc. Crustaceans	-	-	6.5	93.3	166.1	6.7	0.7	2.0
Pteropoda	0.6	-	-	0.4	0.7	5.8	1.4	0.9
Misc. Mollusca	4.1	0.7	2.5	1.3	11.0	2.0	2.0	1.7
Larvacea	6.9	20.7	45.6	6.0	77.7	38.9	25.2	14.2
Misc. Tunicata	-	-	-	-	-	6.4	0.4	-
Leptocardia	-	-	-	-	0.20	-	-	-
Misc. Organisms	3.8	2.3	5.1	687.0	314.5	111.6	98.8	2.9
Subtotal	653.5	904.3	537.7	972.6	1061.2	604.8	1077.9	655.5
Fish Eggs	-	0.40	7.39	1.00	19.73	17.43	2.23	0.35
Fish Larvae	0.19	0.07	0.14	0.26	1.67	1.87	0.82	0.12
Total	653.7	904.8	545.2	973.9	1082.6	624.1	1081.0	656.0

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	17	18	19	20	21	22	23	24
Protozoa	640.8	566.1	488.4	158.7	162.8	6.9	73.0	893.1
Coelenterata	1.7	0.3	4.4	2.5	0.8	3.3	2.2	1.8
Chaetognatha	1.1	3.9	8.6	5.1	25.6	6.9	7.2	13.0
Misc. Worms	0.3	0.3	0.2	1.3	-	-	-	-
Copepoda	16.7	54.7	410.5	303.8	471.6	432.6	445.5	605.2
Ostracoda	-	-	-	1.9	3.5	7.4	4.0	1.8
Mysidacea	-	-	0.5	1.3	2.0	6.1	2.9	-
Amphipoda	0.6	2.6	5.6	9.9	57.9	40.3	7.6	-
Isopoda	-	-	0.2	-	-	-	-	-
Stomatopoda	-	-	1.5	20.7	1.6	4.6	4.3	16.7
Euphausiacea	-	-	0.5	0.3	-	0.8	0.4	0.3
Shrimp	-	0.5	7.6	28.0	40.9	91.9	73.0	4.0
Crabs	-	1.0	8.6	22.9	108.5	81.1	84.5	206.1
Misc. Crustaceans	0.8	-	0.7	6.0	44.9	256.9	103.7	4.3
Pteropoda	-	0.3	1.5	7.3	66.8	2.3	-	-
Misc. Mollusca	0.8	1.3	2.9	2.5	13.4	11.0	8.3	2.8
Larvacea	1.7	9.7	55.1	32.5	171.1	6.6	2.5	1.8
Misc. Tunicata	-	-	1.5	5.7	10.2	1.3	-	2.2
Leptocardia	-	-	-	-	0.16	3.98	-	-
Misc. Organisms	3.1	2.4	3.7	11.8	221.2	219.0	1171.4	196.3
Subtotal	667.6	643.1	1002.0	622.2	1403.0	1183.0	1990.5	1949.4
Fish Eggs	0.06	0.16	20.74	20.19	7.48	12.24	9.78	9.88
Fish Larvae	0.06	0.37	1.32	3.06	13.62	3.16	0.65	0.43
Total	667.7	643.6	1024.1	645.4	1424.1	1198.4	2000.9	1959.7

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	25	26	27	28	29	30	31	32
Protozoa	89.4	65.5	353.3	356.9	474.6	386.9	316.1	110.3
Coelenterata	10.6	12.1	5.6	4.5	6.3	0.8	3.3	22.5
Chaetognatha	5.9	5.9	4.0	10.8	5.0	0.8	1.1	10.1
Misc. Worms	-	0.6	0.8	0.2	0.6	-	0.9	-
Copepoda	45.0	385.2	91.3	101.2	110.7	48.2	118.6	273.9
Ostracoda	-	-	0.3	1.8	1.1	-	-	-
Mysidacea	-	-	0.3	0.2	-	-	-	-
Amphipoda	0.6	0.9	2.6	0.8	0.6	1.2	3.9	3.4
Isopoda	0.9	-	-	-	-	-	-	-
Stomatopoda	102.7	16.4	6.6	0.2	0.2	-	3.9	14.1
Euphausiacea	-	-	0.3	3.3	4.5	0.8	0.4	0.3
Shrimp	15.0	3.1	1.6	2.3	1.1	0.7	-	1.3
Crabs	102.7	21.4	3.7	1.8	1.3	0.4	4.8	16.8
Misc. Crustaceans	-	0.3	0.8	0.8	0.2	0.8	1.1	0.3
Pteropoda	2.8	0.9	0.5	2.3	1.7	0.1	-	0.3
Misc. Mollusca	14.1	2.8	3.4	5.5	4.3	1.2	2.4	7.0
Larvacea	14.4	56.5	9.5	5.3	3.0	2.0	14.7	19.1
Misc. Tunicata	0.6	1.9	0.5	0.2	0.2	-	0.6	17.1
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	86.1	4.3	2.9	4.0	2.0	2.7	4.8	6.7
Subtotal	490.8	577.8	488.0	502.1	617.4	446.6	476.6	503.2
Fish Eggs	6.38	15.59	0.05	0.25	0.34	0.13	9.30	2.48
Fish Larvae	0.12	0.81	0.79	0.10	0.41	0.24	0.48	1.01
Total	497.3	594.2	488.8	502.4	618.2	447.0	486.4	506.7

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	33	34	35	36	37	38	39	40
Protozoa	8.1	4.0	7.5	6.4	7.4	16.7	22.4	44.0
Coelenterata	13.8	3.4	1.4	1.3	2.1	5.3	1.7	3.4
Chaetognatha	10.3	23.0	35.5	2.3	7.0	0.7	1.6	8.3
Misc. Worms	-	0.3	-	-	0.9	0.7	-	0.3
Copepoda	232.4	623.1	1451.3	116.3	367.4	272.1	24.6	110.5
Ostracoda	3.3	10.1	37.1	13.0	2.4	0.3	-	0.4
Mysidacea	0.4	4.0	11.9	-	-	-	-	-
Amphipoda	3.1	29.0	116.4	3.3	2.8	-	0.3	1.7
Isopoda	-	2.0	0.9	-	-	0.7	-	-
Stomatopoda	74.4	3.0	6.5	12.2	23.0	3.7	-	-
Euphausiacea	-	0.3	-	-	0.3	-	-	2.0
Shrimp	7.0	168.3	438.4	178.5	12.9	1.3	0.3	2.8
Crabs	18.4	93.1	188.2	40.3	48.8	7.3	3.5	2.1
Misc. Crustaceans	0.2	2.4	0.7	0.5	0.6	1.7	0.5	0.4
Pteropoda	3.3	1.0	-	8.2	0.6	1.3	0.3	2.0
Misc. Mollusca	2.0	3.4	2.6	40.0	8.6	7.3	2.8	11.4
Larvacea	5.9	35.1	31.1	16.3	13.2	12.0	7.1	2.8
Misc. Tunicata	7.4	3.0	80.6	2.6	1.2	0.7	0.3	0.8
Leptocardia	-	-	0.33	-	-	-	-	0.03
Misc. Organisms	7.2	42.9	200.6	23.5	13.2	11.3	2.1	4.6
Subtotal	397.2	1051.4	2611.0	464.7	512.4	343.1	67.5	197.5
Fish Eggs	5.70	35.07	7.62	23.52	4.48	3.13	0.03	0.08
Fish Larvae	1.01	4.59	1.21	0.92	0.92	0.13	0.24	0.43
Total	403.9	1091.1	2619.9	489.1	517.8	346.4	67.8	198.0

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	41	42	43	44	45	46	47	48
Protozoa	47.2	61.2	20.0	77.2	4.6	2.1	34.5	27.4
Coelenterata	5.3	3.8	1.2	-	1.0	0.9	3.0	6.0
Chaetognatha	4.7	3.3	25.8	8.2	11.4	4.5	21.0	4.4
Misc. Worms	0.4	0.8	1.9	-	2.6	-	0.3	0.2
Copepoda	729.9	716.4	309.8	133.6	983.8	384.9	448.0	261.3
Ostracoda	372.8	8.8	3.1	-	3.9	-	-	53.4
Mysidacea	-	0.3	-	-	-	-	-	-
Amphipoda	8.0	3.6	2.7	-	5.2	-	0.6	2.5
Isopoda	-	-	-	-	-	-	-	0.2
Stomatopoda	7.6	7.4	26.5	31.5	7.5	27.1	10.2	2.1
Euphausiacea	1.3	-	-	-	-	-	0.6	0.5
Shrimp	85.3	11.5	15.0	4.7	20.9	7.1	2.8	5.5
Crabs	9.7	23.9	103.1	62.1	135.1	44.0	18.8	5.3
Misc. Crustaceans	0.2	-	0.4	-	31.4	8.0	0.8	2.5
Pteropoda	2.3	0.8	-	-	-	3.3	1.4	1.4
Misc. Mollusca	2.8	3.6	13.8	-	12.7	1.8	5.5	0.5
Larvacea	62.9	14.3	19.2	10.3	103.9	15.8	20.2	27.6
Misc. Tunicata	3.8	-	1.2	-	1.3	-	1.4	0.7
Leptocardia	-	-	-	-	0.26	-	-	-
Misc. Organisms	601.9	489.2	15.0	3.9	11.8	7.7	8.6	24.2
Subtotal	1946.1	1348.9	558.7	331.5	1337.4	507.2	577.7	425.7
Fish Eggs	8.98	5.66	7.69	1.98	20.13	26.37	2.26	1.06
Fish Larvae	2.12	1.43	1.69	1.90	2.74	1.07	1.05	0.64
Total	1957.2	1356.0	568.1	335.4	1360.2	534.6	581.0	427.4

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	49	50	51	52	53	54	55	56
Protozoa	21.8	47.7	177.8	624.9	45.5	3.8	15.4	7.0
Coelenterata	1.0	2.9	1.9	5.2	1.9	1.1	5.1	3.4
Chaetognatha	2.5	4.0	2.6	98.1	10.1	7.0	3.7	7.0
Misc. Worms	-	0.3	-	2.2	0.8	0.3	3.1	2.4
Copepoda	103.2	181.2	114.5	837.5	214.2	206.3	469.4	453.6
Ostracoda	3.8	0.6	-	33.6	-	6.2	16.0	1.4
Mysidacea	-	-	-	6.5	-	0.5	4.6	8.4
Amphipoda	0.2	3.1	1.9	21.3	1.1	1.4	9.4	2.9
Isopoda	-	-	-	0.6	-	-	1.1	0.7
Stomatopoda	-	2.9	-	1.8	8.5	7.6	0.8	0.5
Euphausiacea	0.2	1.0	0.6	-	-	-	-	-
Shrimp	3.0	0.8	-	206.1	1.1	7.3	41.4	15.6
Crabs	2.8	3.9	0.6	13.3	6.9	9.7	21.7	36.5
Misc. Crustaceans	0.8	0.2	1.3	22.8	0.8	0.8	29.1	119.8
Pteropoda	2.5	1.6	1.9	11.4	0.8	0.3	0.6	0.5
Misc. Mollusca	1.0	1.3	3.5	36.4	2.1	2.2	10.6	12.5
Larvacea	27.8	9.7	9.7	37.6	15.2	52.4	80.6	33.9
Misc. Tunicata	1.5	4.7	4.5	3.4	1.1	1.1	1.7	3.6
Leptocardia	-	-	-	-	-	-	0.06	-
Misc. Organisms	4.8	9.5	24.8	117.8	3.2	6.8	142.3	224.2
Subtotal	176.9	275.4	345.6	2080.5	313.3	314.8	856.7	933.9
Fish Eggs	0.10	0.22	52.58	27.34	1.06	12.97	36.23	5.34
Fish Larvae	0.50	1.22	0.26	0.18	0.90	4.16	3.66	2.74
Total	177.5	276.8	398.4	2108.0	315.3	331.9	896.6	942.0

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	57	58	59	60	61	62	63	64
Protozoa	8.6	0.6	124.0	200.9	138.8	170.8	47.4	19.8
Coelenterata	4.5	2.3	2.6	3.8	7.8	2.6	2.9	-
Chaetognatha	7.5	5.2	6.7	4.1	10.7	6.9	7.4	5.0
Misc. Worms	2.0	-	-	0.3	0.2	0.2	-	-
Copepoda	939.5	211.4	124.0	83.0	249.8	276.3	307.7	13.1
Ostracoda	6.8	1.7	2.6	0.3	3.1	18.0	0.3	6.7
Mysidacea	0.9	-	-	0.5	-	0.5	-	-
Amphipoda	4.5	0.3	0.9	3.0	7.4	1.6	-	0.8
Isopoda	1.1	-	0.3	0.3	-	-	-	-
Stomatopoda	9.3	23.1	6.1	0.5	4.3	1.6	4.2	2.2
Euphausiacea	-	0.6	-	0.8	-	4.3	-	-
Shrimp	11.6	3.2	1.8	-	1.9	1.9	0.6	3.4
Crabs	44.1	25.7	5.6	1.1	3.8	5.2	5.8	5.6
Misc. Crustaceans	96.4	7.8	7.0	-	0.2	-	-	0.3
Pteropoda	0.2	-	-	0.3	4.0	2.8	1.0	0.3
Misc. Mollusca	6.1	0.3	1.5	2.5	3.8	1.9	7.1	0.3
Larvacea	25.2	0.9	14.9	12.4	4.0	12.3	17.7	12.0
Misc. Tunicata	31.4	-	3.8	0.5	6.2	1.9	1.3	1.4
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	34.3	4.9	7.9	5.8	19.8	16.6	5.2	3.6
Subtotal	1234.0	288.0	309.7	320.1	465.8	525.4	408.6	74.5
Fish Eggs	15.82	3.47	6.02	0.82	0.10	0.14	1.55	0.78
Fish Larvae	6.54	0.75	1.40	0.11	0.62	1.00	0.64	2.90
Total	1256.4	292.2	317.1	321.0	466.5	526.5	410.8	78.2

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	65	66	67	68	69	70	71	72
Protozoa	9.6	19.4	42.8	779.6	393.1	375.1	241.3	458.9
Coelenterata	10.2	5.2	4.5	6.8	6.2	8.5	4.2	4.3
Chaetognatha	6.8	2.2	10.5	7.3	3.5	7.7	4.3	4.3
Misc. Worms	-	-	-	-	0.3	0.4	0.1	-
Copepoda	343.5	70.6	233.1	190.4	82.4	66.9	65.7	52.4
Ostracoda	17.9	1.0	-	-	0.6	1.5	-	-
Mysidacea	1.2	-	-	-	-	1.2	0.1	-
Amphipoda	8.3	1.3	2.1	4.6	0.4	-	2.3	0.6
Isopoda	1.2	0.3	-	-	-	-	-	-
Stomatopoda	0.9	1.3	11.7	0.5	0.1	2.3	-	-
Euphausiacea	0.3	-	-	2.4	0.7	5.0	2.2	0.6
Shrimp	38.9	15.2	15.4	0.7	1.8	0.8	1.0	1.8
Crabs	18.5	5.5	13.6	1.2	0.7	0.4	0.6	0.3
Misc. Crustaceans	193.0	10.6	1.8	1.7	0.7	0.8	0.7	-
Pteropoda	-	-	2.7	1.9	1.2	1.9	1.3	0.3
Misc. Mollusca	12.0	2.2	10.5	4.4	6.4	5.8	2.2	1.8
Larvacea	49.4	4.8	18.1	34.7	14.9	16.5	13.0	15.2
Misc. Tunicata	4.6	47.4	32.8	2.9	0.6	-	0.6	-
Leptocardia	-	-	-	-	-	-	-	-
Misc. Organisms	104.7	10.6	5.1	10.2	4.6	2.7	2.4	2.1
Subtotal	821.0	197.6	404.7	1049.3	518.2	497.5	342.0	542.6
Fish Eggs	4.94	3.35	6.93	0.48	0.17	0.15	0.06	0.18
Fish Larvae	3.27	2.58	0.96	0.14	1.00	1.38	0.75	0.12
Total	829.2	203.5	412.6	1049.9	519.4	499.0	342.8	542.9

Table 11.--Numbers of plankton organisms per cubic meter of water (high-speed sampler), cont'd

Tow Number	74	75
Protozoa	422.4	63.1
Coelenterata	4.0	1.6
Chaetognatha	7.9	2.7
Misc. Worms	0.7	-
Copepoda	464.4	56.8
Ostracoda	97.1	-
Mysidacea	1.7	-
Amphipoda	6.9	0.4
Isopoda	-	-
Stomatopoda	1.0	-
Euphausiacea	-	-
Shrimp	35.1	1.4
Crabs	10.6	0.4
Misc. Crustaceans	1.2	-
Pteropoda	10.6	0.2
Misc. Mollusca	20.8	1.6
Larvacea	97.1	15.4
Misc. Tunicata	7.7	1.1
Leptocardia	-	-
Misc. Organisms	157.4	1.1
Subtotal	1346.6	145.8
Fish Eggs	12.28	15.20
Fish Larvae	0.69	2.90
Total	1359.6	163.9

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler)

Run No. 1 Date June 23, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0454	0558	0701	0805	0908	1012	1115	1219
Position of (N. Lat.	27°00'	27°01'	27°01'	27°01'	27°00'	27°01'	27°08'	27°16'
Ship: (W. Long.	79°23'	79°32'	79°40'	79°44'	79°54'	80°03'	80°03'	80°03'
Protozoa	242.7	18.0	170.8	89.9	71.9	-	-	18.0
Coelenterata	9.0	-	-	-	18.0	-	-	-
Chaetognatha	-	36.0	9.0	-	27.0	9.0	27.0	18.0
Misc. Worms	9.0	-	-	-	-	-	-	-
Copepoda	431.5	170.8	260.7	197.8	1438.4	36.0	161.8	233.7
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	18.0	-	9.0	-
Crabs	9.0	-	-	-	53.9	-	9.0	-
Misc. Crustaceans	-	-	9.0	9.0	9.0	-	9.0	-
Mollusca	-	-	-	9.0	9.0	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	9.0	18.0	27.0	45.0	98.9	9.0	27.0	53.9
Subtotal	710.2	242.8	476.5	350.7	1744.1	54.0	242.8	323.6
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	710.2	242.8	476.5	350.7	1744.1	54.0	242.8	323.6

Run No. 2 Date June 23, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1347	1448	1549	1650	1751	1852	1953	2054
Position of (N. Lat.	27°27'	27°35'	27°40'	27°40'	27°41'	27°40'	27°43'	27°46'
Ship: (W. Long.	80°05'	80°04'	80°02'	79°55'	79°45'	79°42'	79°40'	79°32'
Protozoa	45.8	160.2	221.3	167.9	-	61.0	259.4	160.2
Coelenterata	-	-	-	-	-	7.6	-	-
Chaetognatha	-	7.6	30.5	38.2	-	-	7.6	7.6
Misc. Worms	-	7.6	-	-	-	-	22.9	-
Copepoda	183.1	526.5	381.5	587.5	198.4	76.3	793.5	137.3
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	7.6	7.6	7.6	-	7.6	7.6	-
Shrimp	7.6	22.9	-	-	-	-	-	-
Crabs	30.5	7.6	7.6	15.3	-	-	-	-
Misc. Crustaceans	22.9	-	-	15.3	-	7.6	22.9	15.3
Mollusca	-	7.6	7.6	-	-	-	15.3	-
Invertebrate Eggs	-	-	-	-	-	-	38.2	-
Misc. Organisms	7.6	76.3	91.6	99.2	7.6	53.4	68.7	15.3
Subtotal	297.5	823.9	747.7	931.0	206.0	213.5	1236.1	335.7
Fish Eggs	7.6	7.6	7.6	7.6	-	7.6	7.6	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	305.1	831.5	755.3	938.6	206.0	221.1	1243.7	335.7

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 3 Date June 23-24, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2212	2316	0020	0124	0228	0332	0436	0540
Position of Ship: (N. Lat.	27°44'	27°41'	27°44'	27°51'	27°55'	27°58'	28°02'	28°08'
(W. Long.	79°22'	79°18'	79°16'	79°08'	79°02'	79°03'	79°10'	79°20'
Protozoa	268.2	196.9	138.3	129.9	41.9	37.7	41.9	163.4
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	4.2	-	-	-	-	8.4	-	8.4
Misc. Worms	-	4.2	4.2	-	-	4.2	4.2	-
Copepoda	196.9	146.6	21.0	92.2	117.3	16.8	46.1	129.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	4.2	-	-	-	-	4.2	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	4.2	-	-	-	-	-	-	-
Mollusca	-	-	-	-	8.4	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	4.2	8.4	8.4	25.1	33.5	8.4	12.6	16.8
Subtotal	477.7	360.3	171.9	247.2	201.1	75.5	109.0	318.5
Fish Eggs	-	-	-	-	-	-	4.2	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	477.7	360.3	171.9	247.2	201.1	75.5	113.2	318.5

Run No. 4 Date June 24, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0651	0754	0856	0959	1101	1204	1306	1409
Position of Ship: (N. Lat.	28°18'	28°20'	28°21'	28°20'	28°21'	28°23'	28°21'	28°20'
(W. Long.	79°25'	79°26'	79°33'	79°42'	79°48'	79°52'	80°04'	80°11'
Protozoa	138.6	180.2	249.5	369.6	166.3	323.4	263.3	92.4
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	4.6	-	9.2	-	-	32.3	-	4.6
Misc. Worms	-	-	-	-	-	-	4.6	-
Copepoda	55.4	55.4	46.2	41.6	23.1	27.7	69.3	73.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	4.6	-	4.6	-	-	-	-	18.5
Misc. Crustaceans	-	-	9.2	-	-	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	4.6	-	-	-	-	-
Misc. Organisms	4.6	-	4.6	-	4.6	-	13.9	41.6
Subtotal	207.8	235.6	327.9	411.2	194.0	383.4	351.1	231.0
Fish Eggs	-	-	-	-	-	-	-	4.6
Fish Larvae	-	-	-	-	-	-	-	-
Total	207.8	235.6	327.9	411.2	194.0	383.4	351.1	235.6

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 5 Date June 24, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1521	1623	1726	1828	1931	2033	2136	2238
Position of Ship: (N. Lat.	28°20'	28°20'	28°23'	28°30'	28°38'	28°45'	28°53'	28°59'
(W. Long.	80°20'	80°28'	80°28'	80°23'	80°23'	80°26'	80°29'	80°30'
Protozoa	155.9	86.6	52.0	69.3	155.9	43.3	52.0	52.0
Coelenterata	-	-	-	-	-	-	-	8.7
Chaetognatha	69.3	-	26.0	26.0	26.0	34.6	60.6	26.0
Misc. Worms	-	-	-	-	-	-	-	8.7
Copepoda	459.0	346.4	147.2	173.2	329.1	103.9	259.8	459.0
Ostracoda	-	-	-	-	-	-	-	17.3
Amphipoda	-	-	-	-	-	-	-	8.7
Shrimp	-	8.7	-	52.0	43.3	43.3	69.3	77.9
Crabs	103.9	43.3	69.3	8.7	8.7	17.3	17.3	43.3
Misc. Crustaceans	8.7	17.3	17.3	26.0	103.9	77.9	43.3	60.6
Mollusca	17.3	-	8.7	8.7	-	-	17.3	-
Invertebrate Eggs	26.0	-	-	-	-	-	17.3	26.0
Misc. Organisms	17.3	8.7	52.0	52.0	-	-	190.5	277.1
Subtotal	857.4	511.0	372.5	415.9	666.9	320.3	727.4	1065.3
Fish Eggs	8.7	-	-	-	-	8.7	-	17.3
Fish Larvae	-	-	-	-	-	-	-	-
Total	866.1	511.0	372.5	415.9	666.9	329.0	727.4	1082.6

Run No. 6 Date June 24-25, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2348	0048	0148	0248	0348	0448	0548	0648
Position of Ship: (N. Lat.	29°00'	29°00'	29°01'	28°59'	28°58'	28°59'	29°02'	29°02'
(W. Long.	80°23'	80°12'	80°08'	80°00'	79°52'	79°47'	79°45'	79°38'
Protozoa	30.6	85.8	122.6	239.1	98.1	232.9	61.3	73.6
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	12.3	36.8	18.4	6.1	6.1	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	484.3	282.0	306.5	61.3	67.4	171.6	67.4	85.8
Ostracoda	-	-	-	-	-	12.3	-	-
Amphipoda	12.3	6.1	-	-	-	-	-	-
Shrimp	73.6	24.5	-	6.1	-	-	-	-
Crabs	55.2	6.1	18.4	6.1	-	-	6.1	6.1
Misc. Crustaceans	18.4	-	6.1	6.1	-	6.1	6.1	-
Mollusca	-	-	6.1	6.1	-	-	-	-
Invertebrate Eggs	6.1	-	-	6.1	-	-	-	6.1
Misc. Organisms	42.9	30.6	67.4	-	6.1	12.3	6.1	-
Subtotal	723.4	447.4	563.9	349.3	177.7	441.3	147.0	171.6
Fish Eggs	12.3	6.1	-	6.1	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	735.7	453.5	563.9	355.4	177.7	441.3	147.0	171.6

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 7 Date June 25, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0800	0903	1007	1110	1214	1317	1421	1524
Position of Ship: (N. Lat.	29°00'	29°00'	29°03'	29°13'	29°23'	29°33'	29°37'	29°39'
(W. Long.	79°29'	79°26'	79°27'	79°32'	79°34'	79°35'	79°37'	79°41'
Protozoa	157.2	230.6	277.7	183.4	199.1	419.2	220.1	209.6
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	-	10.5	-	5.2
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	89.1	68.1	52.4	36.7	31.4	47.2	47.2	31.4
Ostracoda	5.2	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	10.5	-	-	5.2	-	-	-	-
Misc. Crustaceans	10.5	5.2	5.2	-	-	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	10.5	5.2	-	-	-	-	-	15.7
Subtotal	283.0	309.1	335.3	225.3	230.5	476.9	267.3	261.9
Fish Eggs	-	-	-	-	5.2	5.2	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	283.0	309.1	335.3	225.3	235.7	482.1	267.3	261.9

Run No. 8 Date June 25, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1633	1734	1835	1936	2037	2138	2239	2340
Position of Ship: (N. Lat.	29°39'	29°40'	29°43'	29°44'	29°43'	29°40'	29°40'	29°40'
(W. Long.	79°50'	79°57'	80°01'	80°07'	80°15'	80°21'	80°29'	80°39'
Protozoa	196.2	212.6	245.2	147.2	81.8	70.8	70.8	32.7
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	5.4	-	5.4	10.9	5.4	-	5.4	5.4
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	130.8	98.1	27.2	621.3	212.6	92.6	218.0	98.1
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	5.4	-	-	-	21.8	-	16.4	-
Shrimp	-	-	-	-	-	16.4	16.4	-
Crabs	-	-	-	5.4	-	5.4	16.4	5.4
Misc. Crustaceans	-	-	-	5.4	5.4	-	-	16.4
Mollusca	5.4	-	-	-	5.4	-	5.4	5.4
Invertebrate Eggs	-	-	-	10.9	5.4	-	-	-
Misc. Organisms	21.8	-	10.9	136.2	38.2	10.9	49.0	38.2
Subtotal	365.0	310.7	288.7	937.3	376.0	196.1	397.8	201.6
Fish Eggs	5.4	5.4	-	21.8	-	-	21.8	5.4
Fish Larvae	-	-	-	-	-	-	5.4	5.4
Total	370.4	316.1	288.7	959.1	376.0	196.1	425.0	212.4

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 9 Date June 26, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0102	0206	0310	0414	0518	0622	0726	0830
Position of Ship: (N. Lat.	29°40'	29°40'	29°41'	29°50'	29°58'	30°06'	30°13'	30°19'
(W. Long.	80°49'	81°01'	81°08'	81°09'	81°12'	81°14'	81°17'	81°15'
Protozoa	35.5	97.7	115.4	115.4	381.8	26.6	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	26.6	124.3	62.2	62.2	17.8	35.5	97.7	17.8
Misc. Worms	-	-	8.9	8.9	8.9	-	-	-
Copepoda	799.2	923.5	603.8	852.5	808.1	843.6	151.0	88.8
Ostracoda	-	8.9	-	-	-	-	-	-
Amphipoda	79.9	17.8	71.0	8.9	-	-	-	-
Shrimp	115.4	62.2	79.9	35.5	8.9	17.8	17.8	-
Crabs	35.5	17.8	44.4	44.4	44.4	53.3	44.4	17.8
Misc. Crustaceans	79.9	8.9	159.8	115.4	53.3	44.4	35.5	17.8
Mollusca	17.8	-	-	26.6	17.8	-	-	-
Invertebrate Eggs	17.8	-	-	-	35.5	26.6	-	-
Misc. Organisms	62.2	79.9	106.6	133.2	71.0	35.5	17.8	-
Subtotal	1269.8	1341.0	1252.0	1403.0	1447.5	1083.3	364.2	142.2
Fish Eggs	17.8	8.9	26.6	44.4	8.9	26.6	-	-
Fish Larvae	8.9	8.9	-	-	-	-	-	-
Total	1296.5	1358.8	1278.6	1447.4	1456.4	1109.9	364.2	142.2

Run No. 10 Date June 26, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0947	1051	1155	1259	1403	1507	1611	1715
Position of Ship: (N. Lat.	30°19'	30°20'	30°19'	30°19'	30°20'	30°20'	30°21'	30°21'
(W. Long.	81°08'	80°59'	80°51'	80°40'	80°33'	80°24'	80°14'	80°09'
Protozoa	13.0	25.9	19.4	6.5	58.3	6.5	58.3	162.0
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	-	-	25.9	25.9	19.4
Misc. Worms	-	-	-	-	-	6.5	6.5	-
Copepoda	499.0	123.1	97.2	298.1	142.6	187.9	252.7	213.8
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	19.4	-	-	-	-	-	38.9
Shrimp	13.0	6.5	-	-	-	-	-	-
Crabs	103.7	6.5	13.0	13.0	19.4	6.5	19.4	6.5
Misc. Crustaceans	6.5	19.4	13.0	-	13.0	6.5	-	6.5
Mollusca	-	-	6.5	-	-	-	-	-
Invertebrate Eggs	-	6.5	13.0	13.0	6.5	-	6.5	-
Misc. Organisms	13.0	6.5	6.5	13.0	25.9	84.2	38.9	110.2
Subtotal	648.2	213.8	168.6	343.6	265.7	324.0	408.2	557.3
Fish Eggs	-	-	-	6.5	13.0	6.5	6.5	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	648.2	213.8	168.6	350.1	278.7	330.5	414.7	557.3

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 11 Date June 26-27, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1827	1931	2036	2140	2245	2349	0054	0158
Position of Ship: (N. Lat.	30°20'	30°21'	30°24'	30°25'	30°24'	30°21'	30°26'	30°35'
(W. Long.	80°00'	79°51'	79°47'	79°41'	79°34'	79°27'	79°24'	79°20'
Protozoa	69.7	49.8	89.6	14.9	54.8	69.7	164.3	129.5
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	5.0	-	19.9	10.0	5.0	-	24.9	5.0
Misc. Worms	-	-	-	-	-	-	5.0	-
Copepoda	403.4	234.1	124.5	44.8	89.6	59.8	139.4	84.7
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	5.0	-	-
Shrimp	5.0	-	-	-	5.0	5.0	-	-
Crabs	29.9	10.0	10.0	-	5.0	-	-	-
Misc. Crustaceans	29.9	-	-	-	5.0	10.0	-	5.0
Mollusca	-	-	-	-	-	10.0	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	19.9	64.7	19.9	-	-	10.0	14.9	5.0
Subtotal	562.8	358.6	263.9	69.7	164.4	169.5	348.5	229.2
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	562.8	358.6	263.9	69.7	164.4	169.5	348.5	229.2

Run No. 12 Date June 27, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0312	0416	0521	0625	0730	0834	0939	1043
Position of Ship: (N. Lat.	30°49'	30°57'	30°59'	30°59'	30°57'	30°57'	30°56'	30°58'
(W. Long.	79°16'	79°12'	79°10'	79°11'	79°16'	79°25'	79°31'	79°36'
Protozoa	197.6	57.2	109.2	130.0	67.6	187.2	20.8	119.6
Coelenterata	-	-	5.2	5.2	-	-	-	-
Chaetognatha	-	-	15.6	5.2	-	5.2	-	5.2
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	176.8	46.8	78.0	156.0	52.0	36.4	15.6	26.0
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	10.4	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	10.4	-	5.2	-	-	-	-	-
Misc. Crustaceans	-	-	-	5.2	-	5.2	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	-	5.2	5.2	5.2	10.4	-	-	26.0
Subtotal	395.2	109.2	218.4	306.8	130.0	234.0	36.4	176.8
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	395.2	109.2	218.4	306.8	130.0	234.0	36.4	176.8

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 13 Date June 27, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1301	1403	1506	1608	1711	1813	1916	2018
Position of Ship: (N. Lat.	31°01'	31°01'	31°00'	31°01'	31°00'	31°00'	30°59'	30°59'
(W. Long.	79°43'	79°51'	80°00'	80°08'	80°17'	80°24'	80°30'	80°38'
Protozoa	139.0	129.8	46.4	46.4	18.5	-	9.3	37.1
Coelenterata	9.3	-	9.3	27.8	-	9.3	-	-
Chaetognatha	-	27.8	37.1	18.5	9.3	9.3	9.3	18.5
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	166.9	380.1	287.4	676.7	120.5	120.5	37.1	111.2
Ostracoda	-	-	-	-	-	-	-	9.3
Amphipoda	-	-	-	9.3	-	-	-	9.3
Shrimp	-	-	-	-	-	-	-	18.5
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	9.3	55.6	55.6	64.9	9.3	9.3	9.3	18.5
Subtotal	324.5	593.3	435.8	843.6	157.6	148.4	65.0	222.4
Fish Eggs	-	74.2	-	-	-	-	-	9.3
Fish Larvae	-	-	-	-	-	-	-	-
Total	324.5	667.5	435.8	843.6	157.6	148.4	65.0	231.7

Run No. 14 Date July 2, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0157	0303	0409	0515	0621	0727	0833	0939
Position of Ship: (N. Lat.	31°24'	31°33'	31°40'	31°40'	31°39'	31°38'	31°38'	31°36'
(W. Long.	80°51'	80°43'	80°37'	80°31'	80°23'	80°14'	80°06'	79°55'
Protozoa	-	-	25.5	17.0	-	-	-	-
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	67.9	84.9	34.0	17.0	42.4	17.0	25.5	8.5
Misc. Worms	-	-	-	-	-	-	-	17.0
Copepoda	815.0	967.9	339.6	382.0	101.9	169.8	866.0	263.2
Ostracoda	50.9	8.5	110.4	84.9	8.5	-	-	-
Amphipoda	67.9	42.4	34.0	-	-	-	-	-
Shrimp	161.3	127.4	127.4	161.3	8.5	8.5	-	-
Crabs	93.4	76.4	101.9	59.4	25.5	42.4	8.5	-
Misc. Crustaceans	34.0	8.5	59.4	84.9	25.5	17.0	17.0	8.5
Mollusca	-	-	-	8.5	-	-	-	-
Invertebrate Eggs	-	-	135.8	-	-	-	-	-
Misc. Organisms	203.8	135.8	169.8	17.0	50.9	17.0	42.4	50.9
Subtotal	1494.2	1451.8	1137.8	832.0	263.2	271.7	959.4	348.1
Fish Eggs	-	-	8.5	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	1494.2	1451.8	1146.3	832.0	263.2	271.7	959.4	348.1

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 15 Date July 2, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1151	1253	1356	1458	1601	1703	1806	1908
Position of Ship: (N. Lat.	31°31'	31°32'	31°33'	31°32'	31°30'	31°28'	31°30'	31°31'
(W. Long.	79°36'	79°29'	79°23'	79°12'	79°00'	78°46'	78°40'	78°40'
Protozoa	-	20.6	10.3	5.2	41.2	-	5.2	15.4
Coelenterata	-	10.3	-	-	5.2	-	-	-
Chaetognatha	5.2	-	10.3	5.2	5.2	-	-	15.4
Misc. Worms	-	5.2	-	-	-	-	-	-
Copepoda	396.6	432.6	247.2	226.6	108.2	92.7	113.3	200.8
Ostracoda	-	-	15.4	10.3	-	-	-	-
Amphipoda	-	-	10.3	-	-	-	-	-
Shrimp	5.2	-	-	-	-	5.2	5.2	5.2
Crabs	15.4	5.2	5.2	5.2	-	5.2	5.2	-
Misc. Crustaceans	10.3	10.3	-	-	-	5.2	-	5.2
Mollusca	-	-	-	-	-	5.2	-	5.2
Invertebrate Eggs	-	-	5.2	5.2	-	-	-	-
Misc. Organisms	41.2	-	36.0	20.6	5.2	5.2	20.6	20.6
Subtotal	473.9	484.2	339.9	278.3	165.0	118.7	149.5	267.8
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	473.9	484.2	339.9	278.3	165.0	118.7	149.5	267.8

Run No. 16 Date July 2-3, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2023	2124	2225	2326	0027	0128	0229	0330
Position of Ship: (N. Lat.	31°37'	31°40'	31°43'	31°46'	31°47'	31°52'	31°55'	31°57'
(W. Long.	78°46'	78°53'	78°57'	78°55'	78°56'	79°00'	79°07'	79°14'
Protozoa	29.6	-	-	5.9	41.4	5.9	11.8	-
Coelenterata	-	-	-	-	5.9	5.9	-	5.9
Chaetognatha	5.9	17.8	11.8	-	23.7	11.8	11.8	5.9
Misc. Worms	-	-	5.9	5.9	-	5.9	-	-
Copepoda	195.4	100.6	118.4	124.3	230.9	1083.4	1101.1	260.5
Ostracoda	-	-	-	5.9	-	225.0	290.1	29.6
Amphipoda	-	-	-	5.9	-	-	11.8	-
Shrimp	5.9	-	-	-	5.9	5.9	59.2	17.8
Crabs	-	-	-	-	-	5.9	-	-
Misc. Crustaceans	5.9	-	-	-	-	5.9	5.9	-
Mollusca	11.8	-	-	5.9	-	-	5.9	-
Invertebrate Eggs	11.8	-	-	-	-	106.6	242.7	23.7
Misc. Organisms	11.8	5.9	-	-	35.5	41.4	100.6	11.8
Subtotal	278.1	124.3	136.1	153.8	343.3	1503.6	1840.9	355.2
Fish Eggs	5.9	-	-	-	-	11.8	-	-
Fish Larvae	-	-	-	-	-	5.9	-	-
Total	284.0	124.3	136.1	153.8	343.3	1521.3	1840.9	355.2

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 17 Date July 3, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0509	0610	0712	0813	0915	1016	1118	1219
Position of Ship: (N. Lat.)	32°06'	32°09'	32°14'	32°21'	32°27'	32°31'	32°39'	32°44'
(W. Long.)	79°20'	79°29'	79°35'	79°43'	79°47'	79°41'	79°31'	79°28'
Protozoa	20.8	20.8	-	-	-	-	-	6.9
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	6.9	-	-	13.9	20.8	20.8	131.7	62.4
Misc. Worms	-	-	-	-	-	-	-	6.9
Copepoda	457.4	589.0	540.5	533.6	180.2	277.2	859.3	1316.7
Ostracoda	41.6	-	6.9	-	-	138.6	20.8	-
Amphipoda	-	-	-	-	-	6.9	6.9	-
Shrimp	13.9	-	-	-	-	-	-	-
Crabs	-	13.9	27.7	20.8	6.9	20.8	69.3	83.2
Misc. Crustaceans	13.9	13.9	-	-	6.9	34.6	20.8	-
Mollusca	-	-	-	6.9	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	20.8	-	13.9
Misc. Organisms	27.7	6.9	13.9	20.8	6.9	6.9	48.5	20.8
Subtotal	582.2	644.5	589.0	596.0	221.7	526.6	1157.3	1510.8
Fish Eggs	6.9	-	-	6.9	-	-	20.8	20.8
Fish Larvae	-	-	-	-	-	-	6.9	-
Total	589.1	644.5	589.0	602.9	221.7	526.6	1185.0	1531.6

Run No. 18 Date July 3, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1327	1429	1531	1633	1735	1837	1939	2041
Position of Ship: (N. Lat.)	32°51'	32°53'	32°48'	32°42'	32°38'	32°32'	32°27'	32°25'
(W. Long.)	79°20'	79°14'	79°08'	79°02'	78°57'	78°51'	78°44'	78°42'
Protozoa	-	22.6	-	-	33.9	-	-	33.9
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	22.6	-	-	-	11.3	11.3	-	22.6
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	1254.3	497.2	124.3	180.8	644.1	259.9	519.8	406.8
Ostracoda	-	-	-	-	-	11.3	11.3	79.1
Amphipoda	-	11.3	-	-	-	-	11.3	-
Shrimp	-	-	11.3	-	-	11.3	-	11.3
Crabs	113.0	-	-	22.6	67.8	11.3	-	22.6
Misc. Crustaceans	11.3	22.6	-	-	11.3	22.6	11.3	11.3
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	135.6	22.6	11.3	11.3	67.8	22.6	67.8	67.8
Subtotal	1536.8	576.3	146.9	214.7	836.2	350.3	621.5	655.4
Fish Eggs	11.3	-	-	-	-	-	-	11.3
Fish Larvae	-	-	-	-	-	-	-	-
Total	1548.1	576.3	146.9	214.7	836.2	350.3	621.5	666.7

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 19 Date July 3-4, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2203	2304	0006	0107	0209	0310	0412	0513
Position of Ship: (N. Lat.	32°19'	32°12'	32°11'	32°08'	32°01'	31°56'	31°58'	32°03'
(W. Long.	78°35'	78°29'	78°26'	78°23'	78°15'	78°08'	78°04'	77°54'
Protozoa	9.0	-	-	9.0	9.0	4.5	-	4.5
Coelenterata	-	-	-	4.5	4.5	4.5	-	4.5
Chaetognatha	4.5	4.5	9.0	9.0	-	4.5	9.0	13.4
Misc. Worms	-	-	4.5	-	-	-	-	-
Copepoda	506.2	362.9	233.0	255.4	905.0	183.7	537.6	286.7
Ostracoda	13.4	13.4	4.5	13.4	13.4	-	-	-
Amphipoda	4.5	-	17.9	-	-	4.5	-	-
Shrimp	-	4.5	-	-	-	-	4.5	-
Crabs	13.4	-	-	9.0	9.0	9.0	-	-
Misc. Crustaceans	13.4	9.0	9.0	-	9.0	4.5	-	4.5
Mollusca	9.0	4.5	-	-	9.0	4.5	-	9.0
Invertebrate Eggs	9.0	31.4	-	-	22.4	-	-	-
Misc. Organisms	31.4	31.4	35.8	22.4	98.6	76.2	49.3	44.8
Subtotal	613.8	461.6	313.7	322.7	1079.9	295.9	600.4	367.4
Fish Eggs	-	-	4.5	-	-	-	-	-
Fish Larvae	-	-	-	-	-	9.0	-	-
Total	613.8	461.6	318.2	322.7	1079.9	304.9	600.4	367.4

Run No. 20 Date July 4, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0622	0722	0822	0922	1022	1122	1222	1322
Position of Ship: (N. Lat.	32°11'	32°18'	32°20'	32°22'	32°29'	32°33'	32°34'	32°40'
(W. Long.	77°44'	77°37'	77°33'	77°35'	77°42'	77°47'	77°49'	77°55'
Protozoa	56.7	21.8	8.7	4.4	4.4	21.8	17.4	17.4
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	4.4	13.1	-	4.4	-	-	4.4	4.4
Misc. Worms	-	-	-	-	-	-	-	4.4
Copepoda	479.6	309.6	65.4	82.8	91.6	61.0	191.8	109.0
Ostracoda	-	-	4.4	4.4	4.4	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	4.4	4.4	-	-	-	-	-	-
Crabs	8.7	4.4	-	-	-	8.7	-	-
Misc. Crustaceans	17.4	-	-	-	4.4	-	-	-
Mollusca	13.1	-	-	-	-	-	-	4.4
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	8.7	17.4	30.5	26.2	17.4	17.4	8.7	8.7
Subtotal	593.0	370.7	109.0	122.2	122.2	108.9	222.3	148.3
Fish Eggs	4.4	-	-	34.9	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	597.4	370.7	109.0	157.1	122.2	108.9	222.3	148.3

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 21 Date July 4, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1430	1531	1632	1733	1834	1935	2036	2137
Position of Ship: (N. Lat.	32°46'	32°50'	32°54'	33°00'	33°05'	33°09'	33°15'	33°20'
(W. Long.	78°02'	78°05'	78°10'	78°17'	78°23'	78°28'	78°35'	78°41'
Protozoa	26.4	6.6	19.8	6.6	-	-	6.6	-
Coelenterata	-	-	-	-	-	-	-	6.6
Chaetognatha	-	6.6	19.8	6.6	6.6	13.2	26.4	33.0
Misc. Worms	-	-	6.6	-	-	-	6.6	6.6
Copepoda	336.6	191.4	382.8	336.6	92.4	66.0	165.0	191.4
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	6.6
Shrimp	-	-	-	-	-	13.2	19.8	13.2
Crabs	6.6	6.6	-	-	6.6	6.6	13.2	-
Misc. Crustaceans	-	-	6.6	13.2	-	6.6	13.2	13.2
Mollusca	-	-	-	6.6	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	26.4	19.8	26.4	39.6	6.6	112.2	290.4	376.2
Subtotal	396.0	231.0	462.0	409.2	112.2	217.8	541.2	646.8
Fish Eggs	-	-	-	13.2	6.6	-	6.6	-
Fish Larvae	-	-	-	-	-	-	-	6.6
Total	396.0	231.0	462.0	422.4	118.8	217.8	547.8	653.4

Run No. 22 Date July 4-5, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2243	2343	0043	0143	0243	0343	0443	0543
Position of Ship: (N. Lat.	33°26'	33°31'	33°32'	33°32'	33°33'	33°34'	33°34'	33°35'
(W. Long.	78°48'	78°53'	78°49'	78°39'	78°27'	78°20'	78°11'	78°01'
Protozoa	-	-	16.0	32.0	32.0	16.0	-	-
Coelenterata	-	-	-	32.0	-	-	-	-
Chaetognatha	48.0	16.0	112.0	224.0	144.0	48.0	64.0	32.0
Misc. Worms	-	-	-	-	-	-	-	16.0
Copepoda	704.0	656.0	736.0	1120.0	784.0	432.0	336.0	1584.0
Ostracoda	32.0	-	16.0	-	32.0	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	16.0	16.0	32.0	48.0	48.0	16.0	-	64.0
Crabs	16.0	16.0	48.0	80.0	16.0	-	16.0	128.0
Misc. Crustaceans	32.0	16.0	48.0	48.0	16.0	16.0	16.0	176.0
Mollusca	-	-	-	48.0	-	-	-	16.0
Invertebrate Eggs	-	-	-	-	-	-	-	16.0
Misc. Organisms	144.0	96.0	144.0	592.0	272.0	176.0	64.0	144.0
Subtotal	992.0	816.0	1152.0	2224.0	1344.0	704.0	496.0	2176.0
Fish Eggs	-	-	-	-	16.0	-	48.0	16.0
Fish Larvae	-	-	-	16.0	-	-	-	16.0
Total	992.0	816.0	1152.0	2240.0	1360.0	704.0	544.0	2208.0

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 23 Date July 5, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0650	0750	0851	0951	1052	1152	1253	1353
Position of Ship: (N. Lat.	33°36'	33°31'	33°25'	33°21'	33°17'	33°10'	33°08'	33°05'
(W. Long.	77°53'	77°47'	77°40'	77°35'	77°28'	77°22'	77°20'	77°15'
Protozoa	-	10.0	-	-	-	-	-	19.9
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	-	-	-	10.0	10.0	-	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	438.7	99.7	10.0	69.8	19.9	59.8	109.7	29.9
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	19.9	-	-	-	-	-	-	-
Crabs	39.9	10.0	10.0	-	10.0	-	10.0	-
Misc. Crustaceans	119.6	10.0	-	-	-	-	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	10.0	-	-	-	-	-	-	-
Misc. Organisms	59.8	19.9	29.9	-	10.0	-	10.0	10.0
Subtotal	687.9	149.6	49.9	79.8	49.9	59.8	129.7	59.8
Fish Eggs	10.0	-	-	-	-	-	49.8	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	697.9	149.6	49.9	79.8	49.9	59.8	179.5	59.8

Run No. 24 Date July 5, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1507	1606	1705	1804	1903	2002	2101	2200
Position of Ship: (N. Lat.	32°58'	32°55'	32°54'	32°51'	32°45'	32°41'	32°43'	32°49'
(W. Long.	77°07'	77°02'	77°02'	76°59'	76°53'	76°47'	76°46'	76°43'
Protozoa	30.6	-	-	-	12.2	12.2	6.1	24.4
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	6.1	-	6.1	6.1	6.1	12.2	-	18.3
Misc. Worms	-	-	-	-	-	6.1	-	-
Copepoda	73.3	134.4	12.2	85.5	116.1	177.2	158.9	12.2
Ostracoda	-	-	-	-	-	6.1	-	6.1
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	6.1	-	12.2	-	12.2	12.2	6.1
Misc. Crustaceans	-	6.1	-	-	6.1	6.1	6.1	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	6.1	-
Misc. Organisms	6.1	12.2	6.1	18.3	-	12.2	24.4	36.7
Subtotal	116.1	158.8	24.4	122.1	140.5	244.3	213.8	103.8
Fish Eggs	-	-	-	6.1	-	-	18.3	-
Fish Larvae	-	6.1	-	-	-	-	-	-
Total	116.1	164.9	24.4	128.2	140.5	244.3	232.1	103.8

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 25 Date July 5-6, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	2315	0018	0122	0225	0329	0432	0536	
Position of Ship: (N. Lat.	33°00'	33°09'	33°15'	33°20'	33°24'	33°27'	33°30'	
(W. Long.	76°34'	76°27'	76°23'	76°24'	76°29'	76°36'	76°38'	
Protozoa	23.5	-	23.5	-	11.7	64.6	23.5	*
Coelenterata	-	-	-	-	-	-	-	
Chaetognatha	5.9	-	-	-	-	-	11.7	
Misc. Worms	-	-	-	-	-	-	-	
Copepoda	199.6	23.5	41.1	5.9	41.1	47.0	58.7	
Ostracoda	5.9	-	-	-	-	-	-	
Amphipoda	5.9	-	-	-	5.9	-	-	
Shrimp	-	-	-	-	-	-	-	
Crabs	11.7	-	-	-	-	5.9	-	
Misc. Crustaceans	-	5.9	5.9	-	5.9	5.9	-	
Mollusca	5.9	-	-	5.9	-	-	-	
Invertebrate Eggs	-	-	-	-	-	-	-	
Misc. Organisms	11.7	5.9	11.7	11.7	5.9	-	5.9	
Subtotal	270.1	35.3	82.2	23.5	70.5	123.4	99.8	
Fish Eggs	-	-	5.9	-	-	-	5.9	
Fish Larvae	-	-	-	-	-	-	-	
Total	270.1	35.3	88.1	23.5	70.5	123.4	105.7	

* No sample

Run No. 26 Date July 7, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1526	1628	1730	1832	1934	2036	2138	2240
Position of Ship: (N. Lat.	33°47'	33°53'	33°57'	34°00'	34°07'	34°12'	34°16'	34°20'
(W. Long.	77°00'	77°07'	77°13'	77°19'	77°26'	77°26'	77°20'	77°12'
Protozoa	-	-	6.8	-	-	6.8	6.8	27.4
Coelenterata	-	-	-	-	-	-	-	6.8
Chaetognatha	6.8	-	-	6.8	13.7	68.4	20.5	41.0
Misc. Worms	-	-	-	-	6.8	-	-	-
Copepoda	164.2	34.2	13.7	6.8	82.1	212.0	88.9	164.2
Ostracoda	-	-	-	-	41.0	34.2	-	-
Amphipoda	-	-	-	-	-	27.4	-	-
Shrimp	-	-	-	-	41.0	34.2	20.5	6.8
Crabs	-	-	-	6.8	-	6.8	-	6.8
Misc. Crustaceans	-	-	-	-	6.8	116.3	27.4	109.4
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	6.8	-	-
Misc. Organisms	6.8	-	-	27.4	123.1	157.3	41.0	68.4
Subtotal	177.8	34.2	20.5	47.8	314.5	670.2	205.1	430.8
Fish Eggs	-	-	-	6.8	-	6.8	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	177.8	34.2	20.5	54.6	314.5	677.0	205.1	430.8

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 27 Date July 10, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0711	0812	0913	1014	1115	1216	1317	1418
Position of Ship: (N. Lat.	34°28'	34°22'	34°17'	34°13'	34°07'	34°03'	34°02'	33°57'
(W. Long.	76°43'	76°38'	76°31'	76°27'	76°20'	76°14'	76°10'	76°05'
Protozoa	8.4	-	-	-	59.2	101.4	-	33.8
Coelenterata	-	-	-	-	-	-	-	-
Chaetognatha	16.9	8.4	8.4	8.4	8.4	-	-	-
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	211.2	42.2	67.6	33.8	312.6	33.8	160.6	76.0
Ostracoda	16.9	-	-	-	-	8.4	-	-
Amphipoda	-	-	-	-	-	-	-	8.4
Shrimp	25.4	-	-	-	8.4	8.4	-	-
Crabs	16.9	-	8.4	-	33.8	-	8.4	-
Misc. Crustaceans	25.4	16.9	-	16.9	-	-	25.4	-
Mollusca	-	-	-	-	-	8.4	-	-
Invertebrate Eggs	-	-	-	-	-	8.4	-	-
Misc. Organisms	50.7	16.9	8.4	33.8	16.9	33.8	76.0	25.4
Subtotal	371.8	84.4	92.8	92.9	439.3	202.6	270.4	143.6
Fish Eggs	-	8.4	-	8.4	16.9	-	8.4	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	371.8	92.8	92.8	101.3	456.2	202.6	278.8	143.6

Run No. 28 Date July 10, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1530	1630	1731	1831	1932	2032	2133	2233
Position of Ship: (N. Lat.	33°51'	33°51'	33°55'	34°00'	34°04'	34°08'	34°10'	34°12'
(W. Long.	76°00'	75°59'	75°54'	75°45'	75°35'	75°25'	75°18'	75°17'
Protozoa	17.0	130.2	67.9	11.3	5.7	39.6	11.3	39.6
Coelenterata	-	-	5.7	-	-	-	-	-
Chaetognatha	17.0	-	11.3	11.3	-	11.3	11.3	-
Misc. Worms	-	-	-	-	-	5.7	-	-
Copepoda	34.0	73.6	39.6	45.3	11.3	50.9	5.7	22.6
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	5.7	-	-	-	-	-	-	-
Crabs	17.0	-	5.7	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	5.7	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	17.0	-	-	-	-	-
Misc. Organisms	11.3	28.3	28.3	17.0	-	11.3	17.0	-
Subtotal	102.0	232.1	175.5	84.9	17.0	124.5	45.3	62.2
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	5.7	-	-
Total	102.0	232.1	175.5	84.9	17.0	130.2	45.3	62.2

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 29 Date July 10-11, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0006	0107	0208	0309	0410	0511	0612	0713
Position of Ship: (N. Lat.	34°15'	34°20'	34°24'	34°26'	34°28'	34°29'	34°34'	34°36'
(W. Long.	75°15'	75°23'	75°33'	75°36'	75°35'	75°28'	75°19'	75°07'
Protozoa	11.1	16.7	33.4	5.6	66.7	22.2	22.2	38.9
Coelenterata	-	-	5.6	-	5.6	-	-	5.6
Chaetognatha	-	-	-	5.6	5.6	5.6	5.6	5.6
Misc. Worms	-	-	-	-	-	-	-	-
Copepoda	5.6	16.7	16.7	22.2	55.6	22.2	44.5	22.2
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	5.6
Crabs	-	-	5.6	-	-	-	-	-
Misc. Crustaceans	-	5.6	5.6	-	5.6	5.6	5.6	-
Mollusca	-	-	5.6	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	-
Misc. Organisms	-	-	5.6	16.7	11.1	5.6	5.6	5.6
Subtotal	16.7	39.0	78.1	50.1	150.2	61.2	83.5	83.5
Fish Eggs	-	5.6	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	16.7	44.6	78.1	50.1	150.2	61.2	83.5	83.5

Run No. 30 Date July 11, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	0822	0923	1024	1125	1226	1327	1428	1529
Position of Ship: (N. Lat.	34°38'	34°38'	34°40'	34°42'	34°45'	34°49'	34°54'	34°58'
(W. Long.	74°54'	74°48'	74°48'	74°48'	74°52'	74°59'	75°02'	75°04'
Protozoa	5.9	17.7	11.8	-	17.7	17.7	-	41.3
Coelenterata	-	5.9	-	-	-	-	-	5.9
Chaetognatha	-	-	-	-	5.9	-	-	5.9
Misc. Worms	-	-	-	-	-	-	-	5.9
Copepoda	35.4	17.7	17.7	5.9	35.4	5.9	5.9	11.8
Ostracoda	-	-	-	-	-	-	-	-
Amphipoda	-	-	-	-	-	-	-	-
Shrimp	-	-	-	-	-	-	-	-
Crabs	-	-	-	-	-	-	-	-
Misc. Crustaceans	-	-	-	-	-	5.9	-	-
Mollusca	-	-	-	-	-	-	-	-
Invertebrate Eggs	-	-	-	-	-	-	-	5.9
Misc. Organisms	17.7	-	5.9	5.9	-	11.8	11.8	23.6
Subtotal	59.0	41.3	35.4	11.8	59.0	41.3	17.7	100.3
Fish Eggs	-	-	-	-	-	-	-	-
Fish Larvae	-	-	-	-	-	-	-	-
Total	59.0	41.3	35.4	11.8	59.0	41.3	17.7	100.3

Table 12.--Numbers of plankton organisms per cubic meter of water (continuous plankton sampler), cont'd

Run No. 31 Date July 11, 1954

Compartment No.	1	2	3	4	5	6	7	8
Time (EST)	1641	1745	1850	1954	2059	2203	2308	
Position of Ship: (N. Lat.	35°02'	35°05'	35°04'	35°03'	35°01'	34°56'	34°53'	
(W. Long.	75°12'	75°19'	75°25'	75°32'	75°44'	75°51'	76°02'	
Protozoa	-	13.2	79.3	-	-	-	-	
Coelenterata	-	-	-	-	-	-	-	
Chaetognatha	13.2	13.2	13.2	13.2	13.2	-	26.4	
Misc. Worms	-	13.2	-	-	-	-	-	
Copepoda	26.4	66.0	277.4	171.7	13.2	13.2	66.0	
Ostracoda	-	-	237.8	13.2	13.2	-	-	
Amphipoda	-	-	-	-	-	-	-	
Shrimp	-	-	-	13.2	-	-	13.2	
Crabs	-	13.2	-	-	-	-	-	
Misc. Crustaceans	-	-	-	-	13.2	-	-	
Mollusca	-	-	-	-	-	-	-	
Invertebrate Eggs	26.4	-	-	13.2	-	-	-	
Misc. Organisms	39.6	26.4	26.4	26.4	13.2	13.2	39.6	
Subtotal	105.6	145.2	634.1	250.9	66.0	26.4	145.2	
Fish Eggs	-	-	-	-	-	-	-	
Fish Larvae	-	-	-	-	-	-	-	
Total	105.6	145.2	634.1	250.9	66.0	26.4	145.2	

Table 13.--List of the species of fish in dip-net, trolling, stomach contents, and larval fish net collections (D-dip net; T-trolling; S-stomach contents; L-larval fish net)

Ablennes hians (Valenciennes) D S
Abudefduf saxatilis (Linnaeus) D
Acanthurus sp. S
Acanthurus chirurgus (Bloch) S
Ahlia egmontis (Jordan) D
Alutera sp. D S
Alutera scripta (Osbeck) S
Aluteridae, unidentified S
Amanses pullus (Ranzani) D S
Argyropelecus hemigymnus Cocco D
Auxis thazard (Lacepede) S
Belonidae, unidentified S
Bramidae, unidentified S
Canthidermis sufflamen (Mitchill) D S
Canthidermis sufflamen ? S
Caranx sp. S
Caranx bartholomaei Cuvier D S
Caranx bartholomaei ? S
Caranx crysos (Mitchill) D S
Caranx crysos ? S
Caranx hippos (Linnaeus) S
Caranx latus Agassiz D S
Caranx ruber (bloch) D S
Carcharhinus floridanus
Bigelow, Schroeder, & Springer T
Chiasmodontidae, unidentified D
Clupeidae, unidentified S
Coryphaena hippurus Linnaeus D T S
Cypselurus sp. D
Cypselurus comatus (Mitchill) D
Cypselurus cyanopterus (Valenciennes) D
Cypselurus furcatus (Mitchill) D
Cypselurus heterurus (Rafinesque) D
Cypselurus heterurus ? S
Dactylopterus volitans (Linnaeus) D S
Decapterus punctatus (Agassiz) D S
Decapterus punctatus ? S
Diodon sp. S
Diodon holacanthus Linnaeus D S
Diodon hystrix Linnaeus ? D
Diodontidae, unidentified S
Elagatis bipinnulatus (Quoy & Gaimard) D T
Etrumeus sadina (Mitchill) D S
Euleptorhamphus velox Poey D
Euthynnus alletteratus (Rafinesque) T
Euthynnus alletteratus ? S
Exocoetidae, unidentified S
Exocoetus obtusirostris Günther D
Gempylus serpens Cuvier D
Hemiramphidae, unidentified S
Hemiramphus sp. ? S
Hemiramphus balao Lesueur D S
Hemiramphus brasiliensis (Linnaeus) D
Hippocampus hudsonius DeKay S
Hirundichthys affinis (Günther) D
Histrio histrio (Linnaeus) D L
Holocentrus sp. S
Holocentrus ascensionis (Osbeck) ? S
Holocentrus bullisi Woods D
Holocentrus rufus (Walbaum) S

Table 13.--List of the species of fish in dip-net, trolling, stomach contents, and larval fish net collections (D-dip net; T-trolling; S-stomach contents; L-larval fish net), cont'd

Holocentrus vexillarius Poey D
Holocentrus vexillarius ? S
Hygophum reinhardti (Lütken) D
Istiophoridae, unidentified D
Katsuwonus pelamis (Linnaeus) T S
Kyphosus incisor (Cuvier) D
Kyphosus sectatrix (Linnaeus) L
Monacanthus ciliatus (Mitchill) D S
Monacanthus tuckeri Bean S
Mugil curema Valenciennes D
Myctophum nitidulum (Garman) D
Myctophum obtusirostris Taning D
Oxyporhamphus micropterus (Valenciennes) D
Parexocoetus brachypterus (Richardson) D
Parexocoetus brachypterus ? D
Prionotus sp. S
Prognichthys gibbifrons (Valenciennes) D S
Prognichthys gibbifrons ? D
Psenes cyanophrys Valenciennes D S
Pseudopriacanthus altus (Gill) D
Pterolamiops longimanus (Poey) T
Sardinella anchovia Valenciennes S
Scomberomorus cavalla (Cuvier) T
Scomberomorus maculatus (Mitchill) T
Scombridae, unidentified L S
Selar crumenophthalmus (Bloch) S
Seriola dumerili (Risso) T S
Sphaeroides sp. D S
Sphyraena barracuda (Walbaum) T
Stephanolepis hispidus (Linnaeus) D S
Strongylura acus (Lacepede) D L
Strongylura ardeola (Valenciennes) D
Strongylura raphidoma (Ranzani) D
Syngnathus dunckeri Metzelaar S
Syngnathus pelagicus Linnaeus D
Syngnathus springeri Herald D
Thunnus albacares (Bonnaterre) T
Thunnus atlanticus (Lesson) T S
Xanthichthys ringens (Linnaeus) D S

Table 14.--Numbers and species of fish taken by trolling

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Carcharhinus floridanus /1	June 13	2230	26°27'	76°44'	M	--	2032 /2	--	Squid
Pterolamiops longimanus /1	June 23	2330	27°40'	79°18'	M	--	1800 /2	--	--
Sphyraena barracuda	June 12	1500	26°40'	76°57'	M	II	780	7.0	none
"	June 18	1330	23°58'	77°12'	M	I	655	3.5	none
"	June 18	1540	23°45'	76°56'	M	II	760	6.0	none
"	July 13	0640	34°35'	75°13'	F	II	1160	26.5	Decapterus punctatus ? (4); Diodontidae, unidentified (body spines); fish remains, unidentified (6)
"	July 13	0940	34°40'	74°47'	F	V-VI	1024	17.6	fish remains, unidentified
Katsuwonus pelamis	June 22	1500	25°56.5'	77°54'	F	II	580	9.0	Caranx latus (2); Monacanthus tuckeri (1); Aluteridae, unidentified (1); fish remains, unidentified (5); stomatopod (1); decapod (1)
"	June 22	1500	25°57'	77°55'	M	IV	710	17.0	Cypselurus heterurus ? (1); Caranx crysos (1); Diodon sp. (1); Hemiramphidae, unidentified (2); fish remains, unidentified (7); amphipods (2); decapods (2)

/1 Hook and line
/2 Total length

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
K. pelamis (cont'd)	June 22	1722	26°10'	78°13'	F	III	701	16.0	Hemiramphus balao (1); Prognichthys gibbifrons (2); Thunnus atlanticus (1); Caranx crysos (2); Amanses pullus (1); Diodon holacanthus (10); Hemiramphus sp.? (2); Aluteridae, unidentified (1); fish remains, unidentified (2); crab megalops (3)
"	June 22	1723	26°10'	78°13'	M	V	706	17.0	none
"	June 22	1730	26°11'	78°15'	M	V	640	12.0	Amanses pullus (1); Holocentrus sp. (1); Acanthurus sp. (2); fish remains, unidentified (2); squid (1); stomatopods (3); crabs (6); shrimp (2); decapods (7); amphipods (4)
"	June 22	1920	26°18'	78°31'	F	V	640	13.0	none
"	July 2	1107	31°33'	79°42'	F	II	575	8.5	none
"	July 2	1205	31°31'	79°32'	M	II	564	8.0	none
"	July 4	1252	32°37'	77°51'	F	III	645	13.0	Etrumeus sadina (1)

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Euthynnus alletteratus	June 23	1205	27°14'	80°03'	M	VI	790	14.5	Sardinella anchovia (1); fish remains, unidentified (1)
"	June 23	1335	27°25'	80°05'	F	III	770	14.0	fish vertebrae
"	June 23	1415	27°30'	80°06'	M	VI	726	14.0	Sardinella anchovia (1); fish remains, unidentified
"	June 23	1416	27°30'	80°06'	M	V	595	6.5	none
"	June 23	1421	27°30'	80°05'	M	V	750?	14.0	Clupeidae, unidentified (3); Exocoetidae, unidentified (1); fish remains, unidentified (3); squid remains (2)
"	June 23	1445	27°34'	80°04'	M	V	720	13.0	Monacanthus ciliatus (1); Exocoetidae, unidentified (2); fish vertebrae
"	June 23	1503	27°36'	80°03'	F	V	642	9.5	none
"	June 24	1455	28°21'	80°17'	M	V	660	10.0	none
"	June 24	1500	28°21'	80°18'	M	V	732	13.0	none
"	June 26	1425	30°20'	80°30'	F	III	613	9.0	none
"	June 26	1428	30°20'	80°30'	M	III	515	5.0	none
"	June 26	1431	30°20'	80°30'	M	V	662	12.0	none
"	June 27	1605	31°01'	80°08'	M	III	556	6.5	none
"	June 27	1605	31°01'	80°08'	M	V	621	8.5	fish remains, unidentified
"	July 2	0605	31°39'	80°25'	F	V	550	5.5	none
"	July 2	0846	31°38'	80°03'	M	V	605	8.0	none
"	July 2	0906	31°38'	80°01'	F	III	784	18.0	Auxis thazard (1)
"	July 3	0745	32°18'	79°40'	F	III	500	5.0	squid (7)
"	July 3	1845	32°31'	78°50'	F	III	582	7.5	squid (4)
"	July 3	1905	32°29'	78°47'	M	V	706	12.5	none
"	July 5	0855	33°23'	77°40'	F	V	735	13.0	Decapterus punctatus (2)
"	July 5	0905	33°23'	77°38'	M	V-VI	810	17.5	fish remains, unidentified (1)

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date (1954)	Time (EST)	Location N. lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
E. alletteratus (cont'd)	July 5	1015	33°20'	77°32'	F	V-VI	780	15.0	Decapterus punctatus (1); fish remains, unidentified (1); squid (1); oyster shells (2); unidentified worm (1)
"	July 7	0932	34°15'	76°46'	F	III	479	4.0	squid (2)
"	July 7	0940	34°14'	76°47'	M	V	555	6.0	Clupeidae, unidentified (1)
"	July 7	0941	34°14'	76°47'	F	III	503	4.5	none
"	July 10	1040	34°11'	76°24'	F	V-VI	510	5.0	none
"	July 13	0630	34°35'	75°15'	F	IV	620	7.5	fish remains, unidentified (9); squid (4)
"	July 13	0631	34°35'	75°15'	F	V	630	8.5	Euthynnus alletteratus ? (2); Stephanolepis hispidus (1); Scombridae, unidentified (11); Aluteridae, unidentified (3); fish remains, unidentified (21); squid (3)
Thunnus atlanticus	June 22	1650	26°06'	78°08'	M	IV-V	491	5.2	Selar crumenophthalmus (4); Caranx hippos (1); Diodon sp. (2); Aluteridae, unidentified (1); fish remains unidentified (4); octopus (1); stomatopods (23); amphipods (1); crabs (6); shrimp (2); decapods (7)
"	June 22	1715	26°09'	78°12'	F	III	477	5.0	Acanthurus chirurgus (1); Monacanthus ciliatus (1); Acanthurus sp. (2); Sphaeroides sp. (1); fish remains, unidentified (1); octopus (1); stomatopod (1); decapod (1)

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Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
T. atlanticus (cont'd)	June 22	1717	26°09.5'	78°12'	M	IV-V	619	13.0	none
"	June 22	1720	26°10'	78°13'	M	IV-V	673	15.0	Syngnathus dunckeri (1); Acanthurus sp. (2); fish remains, unidentified (9); octopuses (2); squid (1); heteropod (1); stomatopods (5); decapods (21); ostracod (1); amphipod (1)
"	June 24	0545	28°09'	79°21'	M	V	505	5.5	Monacanthus ciliatus (1); Acanthurus chirurgus (2); Aluteridae, unidentified (4); fish remains, unidentified (7); octopus (1); amphipod (1)
"	June 26	1820	30°20'	80°01'	F	III	432	3.5	Hippocampus hudsonius (4); Decapterus punctatus (1); Selar crumenophthalmus (1); Caranx crysos ? (1); Dactylopterus volitans (3); Sphaeroides sp. (1); Acanthurus sp. (1); Bramidae, unidentified (6); Scombridae, unidentified (1); Aluteridae, unidentified (1); fish remains, unidentified (16); octopus (1); gastropod (1); stomatopods (2); decapods (3); amphipods (5)
"	July 3	1908	32°29'	78°47'	M	V	479	5.5	none

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Thunnus albacares	June 22	1515	25°57.5'	77°56'	M	I	867	28.6	Ablennes hians (6); Katsuwonus pelamis (1); Coryphaena hippurus (1); Holocentrus rufus (1); Holocentrus vexillarius ? (1); Holocentrus adscensionis ? (1); Diodon holacanthus (2); Caranx sp. (1); Holocentrus sp. (1); Diodon sp. (14); Belonidae, unidentified (6); Aluteridae, unidentified (1); fish remains, unidentified (5); squid (8); stomatopod (1); isopod (1)
"	June 22	1600	26°01.5'	78°01.5'	M	I	809	23.0	Caranx crysos (3); Caranx ruber (6); Caranx bartholomaei ? (1); Xanthichthys ringens (8); Alutera scripta (2); Diodon holacanthus (3); Caranx sp. (3); Alutera sp. (1); fish remains, unidentified (20); crab (1)
"	June 22	1650	26°06'	78°08'	M	I	1010	41.9	Caranx ruber (2); Canthidermis sufflamen (1); Diodon sp. (6); Belonidae, unidentified (1); fish remains, unidentified (2); cephalopod beaks; crab (1); decapods (7)

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
Scomberomorus cavalla	July 5	0850	33°24'	77°40'	F	V	900	12.5	none
"	July 13	0632	34°35'	75°15'	M	VI	808	7.5	none
"	July 13	1020	34°41'	74°47'	F	IV	1080	16.5	fish remains, unidentified
Scomberomorus maculatus	June 14	1700	25°51'	77°07'	M	V	524	2.5	none
"	July 2	0600	31°39'	80°26'	F	IV	486	2.0	none
Coryphaena hippurus	June 12	0600	27°44'	77°31'	F	II-III	1197	25.0	Thunnus atlanticus (1); cephalopod beaks (2); crab (1)
"	June 18	1550	23°44'	76°54'	F	V	735	13.0	Caranx bartholomaei (2); fish remains, unidentified (2)
" /1	June 19	1125	23°40.5'	76°50'	F	III-IV	1061	18.0	Hemiramphus balao (1); Caranx bartholomaei (4); Amanses pullus (2); Sphaeroides sp. (3); fish remains, unidentified (9); cephalopod remains (1)
" /1	June 19	1135	23°40.5'	76°50'	F	III	942	12.0	Caranx ruber (1); Alutera sp. (1); fish remains, unidentified (9)
" /1	June 19	1235	23°40.5'	76°50'	M	I	1062	19.0	Caranx sp. (1); Sphaeroides sp. (1)
"	June 23	0640	27°01'	79°37'	F	III	1002	16.0	crabs (3)
"	June 24	1225	28°22'	79°56'	F	III	735	7.5	Seriola dumerili (1)
"	June 26	1210	30°19'	80°48'	F	I	515	2.5	fish remains, unidentified (1); squid (2)

/1 Hook and line

Table 14.--Numbers and species of fish taken by trolling (cont'd)

Species	Date (1954)	Time (EST)	Location N.lat.	Location W.long.	Sex	Stage Gonad Devel.	Fork Length (mm.)	Weight (lbs.)	Stomach Contents
C. hippurus (cont'd)	June 26	1900	30°20'	79°55'	M	V	795	10.0	none
"	June 26	1925	30°21'	79°53'	F	IV	708	6.5	Canthidermis sufflamen ? (2); Aluteridae, unidentified (2); fish remains, unidentified (4)
"	July 2	0955	31°35'	79°52'	M	I	912	16.5	fish remains, unidentified (1); crabs (4)
"	July 3	1810	32°35'	78°54'	F	IV	596	4.5	none
"	July 7	1021	34°08'	76°48'	F	II	636	5.0	none
"	July 7	1140	34°00'	76°50'	F	I	580	4.5	none
"	July 7	1142	34°00'	76°50'	M	I	501	2.5	none
"	July 7	1144	34°00'	76°50'	M	I	602	5.0	none
"	July 7	1146	34°00'	76°50'	F	I	551	3.5	none
"	July 7	1204	33°58'	76°50'	M	I-II	890	15.0	Aluteridae, unidentified (1); fish remains, unidentified (1); shrimp (4); crabs (7)
"	July 7	1317	33°50'	76°52'	F	IV-V	787	7.5	none
"	July 7	1523	33°48'	76°59'	F	III	555	3.5	none
"	July 7	1540	33°49'	77°01'	F	III	559	4.0	none
"	July 10	1045	34°11'	76°24'	F	IV	547	3.5	fish remains, unidentified
"	July 11	0610	34°34'	75°19'	F	IV-V	675	6.0	Psenes cyanophrys (1); Decapterus punctatus (1); squid (1)
Seriola dumerili	July 7	1900	34°04'	77°22'	M	I	930	27.6	Prionotus sp. (1); squid remains
Elagatis bipinnulatus	June 14	1300	26°27'	76°44'	F	IV	680	7.0	fish remains, unidentified (1)
"	June 22	1200	25°36'	77°34'	M	III	620	6.0	none

Table 15.--Numbers and species of fish taken by dip net /1

Species	Location of capture, number and size range (in standard length) of specimens
CLUPEIDAE	
Etrumeus sadina	-Reg. 14, (2) 107-109.5 mm.
STERNOPTYCHIDAE	
Argyropelecus hemigymnus	-Std., 6/13/54, 0800-1600, (1) 13.2 mm.
ECHELIDAE	
Ahlia egmontis	-Reg. 13, (1) 197 mm.
MYCTOPHIDAE	
Hygophum reinhardti	-Spc. 5, (3) 17-21 mm.
Myctophum nitidulum	-Std., 6/12-13/54, 1800-0100, (5) 16.5-30 mm. Std., 6/13-14/54, 1700-0730, (3) 16-17.5 mm. TO, 23°40.5'N., 76°50'W., 6/18/54, 2000-2400, (7) 16.5-30 mm. Spc. 5, (3) 36-72 mm. Spc. 8, (18) 19-32 mm. Reg. 27, (14) 20-33 mm. Reg. 28, (10) 19-32.5 mm. Reg. 73, (6) 20-31 mm.
Myctophum obtusirostris	-Spc. 8, (1) 21 mm.
BELONIDAE	
Strongylura ardeola	-Std., 6/12-13/54, 1800-0100, (1) 225 mm. Std., 6/13-14/54, 1700-0730, (1) 117 mm. Std., 6/15-16/54, 2000-0100, (3) 151-256 mm. Spc. 5, (1) 135 mm. Reg. 27, (2) 181-224 mm. Reg. 49, (1) 161 mm.
Strongylura acus	-Std., 6/13/54, (1) 105 mm. Std., 6/13/54, 1630-1730, (1) 150 mm. /1 Std., 6/15-16/54, 2000-0100, (1) 214 mm.
Strongylura raphidoma	-Reg. 7, (1) 202 mm.
Ablennes hians	-Reg. 7, (2) 200-233 mm.
HEMIRAMPHIDAE	
Hemiramphus brasiliensis	-TO, (1) 48.5 mm. Reg. 34, (6) 83.5-145 mm. Reg. 49, (4) 35-52 mm. Reg. 77, (1) 40 mm.

/1 Several specimens taken by larval fish net are denoted by footnote 1

Table 15.--Numbers and species of fish taken by dip net[/1] (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
HEMIRAMPHIDAE (cont'd)	
Hemiramphus balao	-Std., 6/12-13/54, 1800-0100, (3) 41-67 mm. Std., 6/13/54, 0800-1600, (2) 26-29.5 mm. Std., 6/13-14/54, 1700-0730, (2) 37-97 mm. Std., 6/15-16/54, 2000-0100, (2) 77-94.5 mm. Spc. 8, (1) 38.5 mm. Reg. 13, (1) 86 mm. Reg. 27, (1) 36 mm. Reg. 49, (1) 70.5 mm.
Euleptorhamphus velox	-Std., 6/12-13/54, 1800-0100, (1) 203 mm.
EXOCOETIDAE	
Oxyporhamphus micropterus	-Spc. 8, (1) 16 mm.
Parexocoetus brachypterus	-Std., 6/12-13/54, 1800-0100, (2) 27.5-98 mm. Std., 6/13-14/54, 1700-0730, (2) 22-22.5 mm. Reg. 7, (2) 54-105 mm. Reg. 13, (7) 50-100 mm. Reg. 14, (1) 29.5 mm. Reg. 19, (1) 87 mm. Reg. 27, (1) 53 mm. Reg. 28, (1) 54 mm. Reg. 33, (1) 73.5 mm. Reg. 34, (2) 34-38.5 mm. Reg. 49, (1) 32.5 mm. Reg. 55, (3) 23.5-119 mm.
Parexocoetus brachypterus ?	-Reg. 17, (1) about 9.3 mm.
Exocoetus obtusirostris	-Std., 6/12-13/54, 1800-0100, (3) 27.5-60 mm. Spc. 5, (1) 101 mm. Spc. 8, (1) 58.5 mm.
Cypselurus cyanopterus	-Std., 6/12-13/54, 1800-0100, (1) 44 mm.
Cypselurus comatus	-Std., 6/13-14/54, 1700-0730, (3) 41.5-57 mm. Reg. 7, (1) 44.5 mm. Reg. 28, (1) 61 mm.
Cypselurus heterurus	-Std., 6/12-13/54, 1800-0100, (2) 66.5-72.5 mm. Reg. 7, (2) 178-213 mm. Reg. 13, (3) 185-215 mm. Reg. 19, (3) 193-197 mm. Reg. 28, (1) 149 mm. Reg. 33, (1) 210 mm. Reg. 55, (1) 192 mm.
Cypselurus furcatus	-Std., 6/13-14/54, 1700-0730, (1) 64 mm. Std., 6/15-16/54, 2000-0100, (1) 58 mm.
Cypselurus sp.	-Std., 6/13/54, 0800-1600, (1) 10 mm. Reg. 47, (1) 8.5 mm.

/1 Larval fish net

Table 15.--Numbers and species of fish taken by dip net/1 (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
EXOCOETIDAE (cont'd)	
Prognichthys gibbifrons	-Std., 6/12-13/54, 1800-0100, (4) 12-91.5 mm. Std., 6/13/54, 0800-1600, (4) 8.5-19.5 mm. Std., 6/13-14/54, 1700-0700, (1) 11.5 mm. Std., 6/14/54, 0800-1200, (1) 13 mm. TO, (1) 11.5 mm. Reg. 28, (1) 14.5 mm. Reg. 42, (2) 24.5-31.5 mm. Reg. 48, (2) 14.5-24.5 mm. Reg. 55, (2) 26-52 mm. Reg. 73, (1) 20.5 mm. Reg. 76 to 33°35'N., 77°20'W., (1) 28.5 mm./2
Prognichthys gibbifrons ? *Hirundichthys affinis*	-Reg. 47, (1) 6.5 mm. -Std., 6/13-14/54, 1700-0730, (1) 49.5 mm. Std., 6/15-16/54, 2000-0100, (1) 56.5 mm. Reg. 17, (1) 9.5 mm. Reg. 31, (2) 9-9.5 mm.
HOLOCENTRIDAE	
Holocentrus vexillarius	-Spc. 5, (1) 35 mm. Spc. 9, (2) 20.5-23.5 mm. Reg. 7, (3) 18.5-20.5 mm. Reg. 28, (11) 17-26.5 mm.
Holocentrus bullisi	-Std., 6/13-14/54, 1700-0730, (11) 34.5-37.5 mm. Reg. 1, (2) 21.5-23.5 mm. Reg. 7, (1) 16.5 mm.
SYNGNATHIDAE	
Syngnathus pelagicus	-Special Trial Station, 30°22'N., 78°26'W., 6/10/54, 1030, (4) 98-123 mm. Std., 6/15-16/54, 2000-0100, (1) 131 mm.
Syngnathus springeri	-Reg. 33, (1) 291 mm.
MUGILIDAE	
Mugil curema	-Reg. 17, (1) 7.2 mm.
SCOMBRIDAE	
Unidentified	-Std., 6/13/54, 1630-1730, (1) 8 mm./1
GEMPYLIDAE	
Gempylus serpens	-Std., 6/16/54, (1) 25 mm.
Gempylus serpens/3	-Std., 6/13/54, 0800-1600, (1) about 10 mm.

/1 Larval fish net

/2 Found on deck; exact position unknown

/3 *Gempylus* B of Voss (1954. Bull. Mar. Sci. Gulf and Caribb., 4(2): 120-159)

Table 15.--Numbers and species of fish taken by dip net[1] (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
ISTIOPHORIDAE	
Unidentified	-Std., 6/13/54, 1200, (1) 10.1 mm.
CORYPHAENIDAE	
Coryphaena hippurus	-Std., 6/12-13/54, 1800-0100 (1) 21.5 mm. Std., 6/13/54, (1) 26.4 mm. Std., 6/14/54, 0400, (1) 172 mm. Std., 6/15-16/54, (1) 102 mm. Spc. 9, (2) 16.4-28.3 mm. Reg. 15, (1) 17.8 mm. Reg. 25, (1) 13.1 mm. Reg. 29, (2) 81-82 mm.
NOMEIDAE	
Psenes cyanophrys	-Reg. 16, (7) 23.5-33 mm. Reg. 27, (1) 17.5 mm.
CARANGIDAE	
Elagatis bipinnulatus	-Reg. 7, (1) 29 mm. Reg. 16, (1) 34.5 mm. Reg. 30, (2) 19.5-20 mm. Reg. 71, (1) 18 mm.
Decapterus punctatus	-Reg. 25, (3) 25-29.5 mm. Reg. 37, (2) 37-48.5 mm. Reg. 42, (1) 25 mm. Reg. 71, (3) 19.5-26 mm.
Caranx crysos	-Reg. 2 to Reg. 3, 27°01'N., 79°45'W., (30) 9.1-14.4 mm. Reg. 17, (1) 33 mm. Reg. 18, (1) 39 mm. Reg. 27, (1) 22.9 mm. Reg. 30, (62) 12-24 mm. Reg. 71, (53) 11-19 mm. Reg. 72, (14) 17-24.5 mm.
Caranx ruber	-Std., 6/12-13/54, 1800-0100, (16) 27.5-79.5 mm. Std., 6/13-14/54, 1700-0730, (2) 45.5-73 mm. Std., 6/14/54, 0800-1200, (4) 25.6-47.5 mm. Spc. 5, (5) 31.5-56 mm. Reg. 7, (1) 21 mm. Reg. 16, (7) 23-84.5 mm. Reg. 27, (4) 21.6-68.5 mm. Reg. 30, (1) 18.1 mm. Reg. 71, (5) 12.4-15.7 mm.

[1] Larval fish net

Table 15.--Numbers and species of fish taken by dip net/1 (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
CARANGIDAE (cont'd)	
Caranx bartholomaei	-Std., 6/12-13/54, 1800-0100, (3) 34.2-44 mm. Std., 6/13-14/54, 1700-0730, (2) 40.5-47 mm. Std., 6/14/54, 0800-1200, (3) 29.5-44.7 mm. Spc. 5, (1) 33.9 mm. Reg. 27, (1) 30.7 mm. Reg. 30, (1) 19.8 mm.
Caranx latus	-Std., 6/13/54, 0800-1600, (1) 40 mm.
PRIACANTHIDAE	
Pseudopriacanthus altus	-Reg. 38, (1) 12.5 mm.
KYPHOSIDAE	
Kyphosus sectatrix	-Std., 6/13/54, 1630-1730, (1) 34 mm./1
Kyphosus incisor	-Std., 6/13-14/54, 1700-0730, (1) 16.5 mm. Reg. 17, (2) 9-10 mm. Reg. 71, (1) 19 mm. Reg. 72, (1) 19 mm.
POMACENTRIDAE	
Abudefduf saxatilis	-Reg. 16, (1) 23 mm. Reg. 27, (4) 13-20 mm. Reg. 29, (1) 12.5 mm. Reg. 30, (1) 10.5 mm.
DACTYLOPTERIDAE	
Dactylopterus volitans	-Reg. 42, (1) 32 mm.
CHIASMODONTIDAE	
Unidentified	-Std., 6/13/54, 0800-1600, (1) 21 mm.
BALISTIDAE	
Xanthichthys ringens	-Std., 6/12-13/54, 1800-0100, (2) 38-49.5 mm. Std., 6/13-14/54, 1700-0730, (2) 37-49 mm.
Canthidermis sufflamen	-Std., 6/12-13/54, 1800-0100, (1) 55 mm. Std., 6/14/54, 0800-1200, (1) 53.5 mm. Reg. 17, (1) 28 mm. Reg. 72, (1) 30 mm. Reg. 73, (1) 51.5 mm.

/1 Larval fish net

Table 15.--Numbers and species of fish taken by dip net/1 (cont'd)

Species	Location of capture, number and size range (in standard length) of specimens
ALUTERIDAE	
Monacanthus ciliatus	-Reg. 54, (1) 15 mm. Reg. 71, (1) 24.5 mm.
Stephanolepis hispidus	-Reg. 24, (8) 14-32 mm. Reg. 25, (74) 8.5-22.5 mm. Reg. 30, (2) 13-40 mm. Reg. 31, (10) 8.5-17 mm. Reg. 32, (36) 9.5-26 mm. Reg. 33, (6) 30-40.5 mm. Reg. 37, (28) 8-50 mm. Reg. 38, (7) 6.5-21.5 mm. Reg. 48, (3) 6-11.5 mm. Reg. 49, (1) 12 mm. Reg. 54, (46) 8-45 mm. Reg. 71, (13) 12.5-34 mm. Reg. 72, (1) 55.5 mm.
Amanses pullus	-Std., 6/13-14/54, 1700-0730, (1) 46.5 mm.
Alutera sp./4	-Reg. 25, (1) 21.5 mm.
TETRAODONTIDAE	
Sphaeroides sp.	-Reg. 31, (4) 6-8 mm.
DIODONTIDAE	
Diodon holacanthus	-Std., 6/12-13/54, 1800-0100, (2) 37.5-55 mm. Std., 6/13/54, 0800-1600, (1) 38 mm. Std., 6/13-14/54, 1700-0730, (1) 40.5 mm. Spc. 5, (1) 33.5 mm. Reg. 16, (1) 33 mm. Reg. 41, (1) 48 mm.
Diodon hystrix ?	-Std., 6/13-14/54, 1700-0730, (1) 32.5 mm.
ANTENNARIIDAE	
Histrio histrio	-Special Trial Station, (19) 10.5-52 mm. Std., 6/12-13/54, 1800-0100, (12) 11-21 mm. Std., 6/13/54, 0800-1600, (5) 11.5-15.5 mm. Std., 6/13/54, 1630-1730, (1) 13.5 mm. /1 Std., 6/13-14/54, 1700-0730, (6) 11.5-28.5 mm. Spc. 5, (7) 13-17 mm. Reg. 16, (1) 14 mm. Reg. 17, (1) 14.5 mm. Reg. 27, (8) 9.5-18 mm. Reg. 30, (1) 25.5 mm. Reg. 48, (1) 21 mm.

/1 Larval fish net

/4 Alutera punctata Agassiz or A. schoepfii (Walbaum)

Table 16.--Record of drift bottles released and recovered

Released					Recovered			
Sta.	Bottle No.	N. Lat.	W. Long.	(1954) Date	N. Lat.	W. Long.	Date	Days Adrift
3	-	27° 00'	80° 03.5'	June 23	No returns	-	-	-
4	-	27° 20'	80° 03.5'	June 23	" "	-	-	-
5	-	27° 40'	80° 03.5'	June 23	" "	-	-	-
10	-	28° 20'	80° 10'	June 24	" "	-	-	-
11	14243	28° 20'	80° 33'	June 24	32° 17.6'	64° 45'	Mar. 19, 1955	268
12	-	28° 41'	80° 25'	June 24	No returns	-	-	-
13	14258	29° 00'	80° 32'	June 24	38° 40'	27° 25'	Feb. 6, 1955	227
19	-	29° 40'	80° 22.5'	June 25	No returns	-	-	-
20	-	29° 40'	80° 45'	June 26	" "	-	-	-
21	-	29° 40'	81° 08'	June 26	" "	-	-	-
22	-	30° 01'	81° 14'	June 26	" "	-	-	-
23	-	30° 20'	81° 20'	June 26	" "	-	-	-
24	-	30° 20'	80° 58'	June 26	" "	-	-	-
25	-	30° 20'	80° 35.5'	June 26	" "	-	-	-
32	-	31° 00'	80° 23'	June 27	" "	-	-	-
33	-	31° 00'	80° 46.5'	June 27	" "	-	-	-
34	-	31° 00'	81° 08.5'	June 27	" "	-	-	-
35	-	31° 21'	80° 53'	July 2	" "	-	-	-
36	-	31° 41.5'	80° 36.5'	July 2	" "	-	-	-
37	-	31° 38.5'	80° 15'	July 2	" "	-	-	-
38	-	31° 35.5'	79° 51.5'	July 2	" "	-	-	-
43	-	32° 12'	79° 33'	July 3	" "	-	-	-
44	-	32° 26'	79° 48'	July 3	" "	-	-	-
45	-	32° 40'	79° 32.5'	July 3	" "	-	-	-
46	-	32° 54.5'	79° 16.5'	July 3	" "	-	-	-
47	-	32° 40'	79° 00'	July 3	" "	-	-	-
54	-	33° 03'	78° 21'	July 4	" "	-	-	-
55	-	33° 17.5'	78° 38'	July 4	" "	-	-	-
56	14425	33° 32.5'	78° 54.5'	July 4	33° 53.5'	78° 02'	July 14, 1954	10
56	14426	33° 32.5'	78° 54.5'	July 4	33° 53.5'	78° 02'	July 14, 1954	10
56	14427	33° 32.5'	78° 54.5'	July 4	33° 53.5'	78° 02'	July 14, 1954	10
56	14430	33° 32.5'	78° 54.5'	July 4	33° 53.5'	78° 02'	July 15, 1954	11
56	14432	33° 32.5'	78° 54.5'	July 4	33° 52'	78° 30.5'	July 12, 1954	8
56	14435	33° 32.5'	78° 54.5'	July 4	33° 54.7'	78° 08'	July 15, 1954	11
56	14436	33° 32.5'	78° 54.5'	July 4	33° 49'	78° 40'	July 14, 1954	10
57	-	33° 34'	78° 24'	July 5	No returns	-	-	-
58	-	33° 36.5'	77° 54.5'	July 5	" "	-	-	-
59	-	33° 22'	77° 38'	July 5	" "	-	-	-
66	-	33° 57'	77° 13'	July 7	" "	-	-	-
67	-	34° 11'	77° 29.5'	July 7	" "	-	-	-
68	-	34° 21'	77° 09'	July 7	" "	-	-	-
69	-	34° 32'	76° 49'	July 10	" "	-	-	-
70	-	34° 18.5'	76° 32'	July 10	" "	-	-	-
78	-	35° 06.5'	75° 20.5'	July 11	" "	-	-	-
77	-	35° 01'	75° 45'	July 11	" "	-	-	-
76	-	34° 53'	76° 09.5	July 12	" "	-	-	-

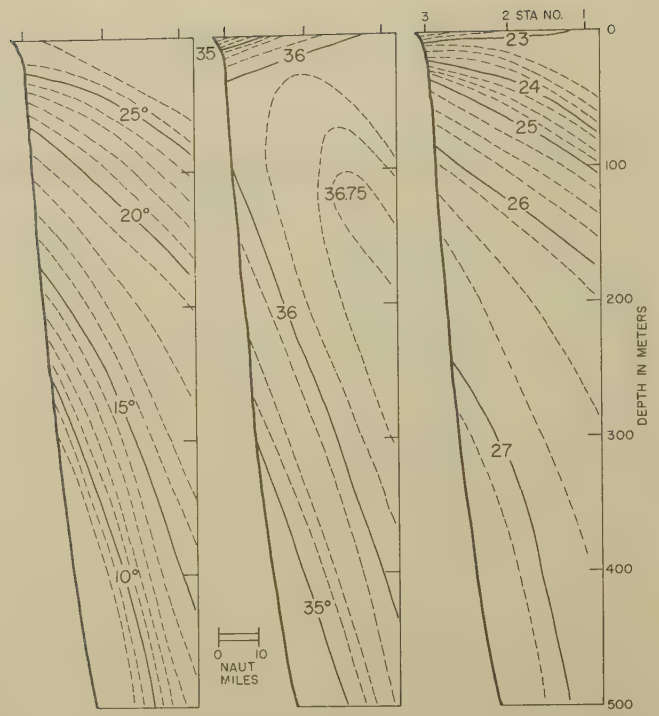

Figure 5.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 1, 2, and 3 (Jupiter Section).

Figure 6.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 5, 6, and 7 (Vero Section).

Figure 7.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 8, 9, 10, and 11 (Canaveral Section).

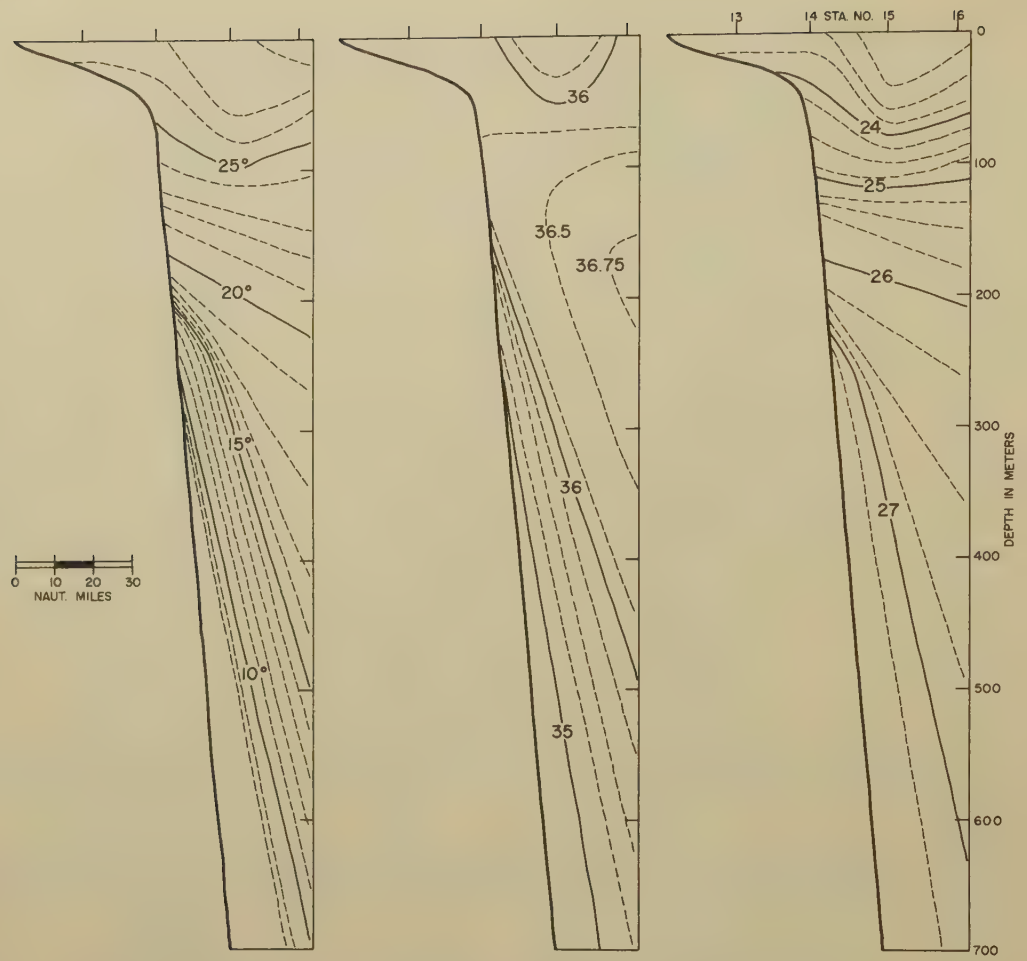

Figure 8.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 13, 14, 15, and 16 (Ponce de Leon Section).

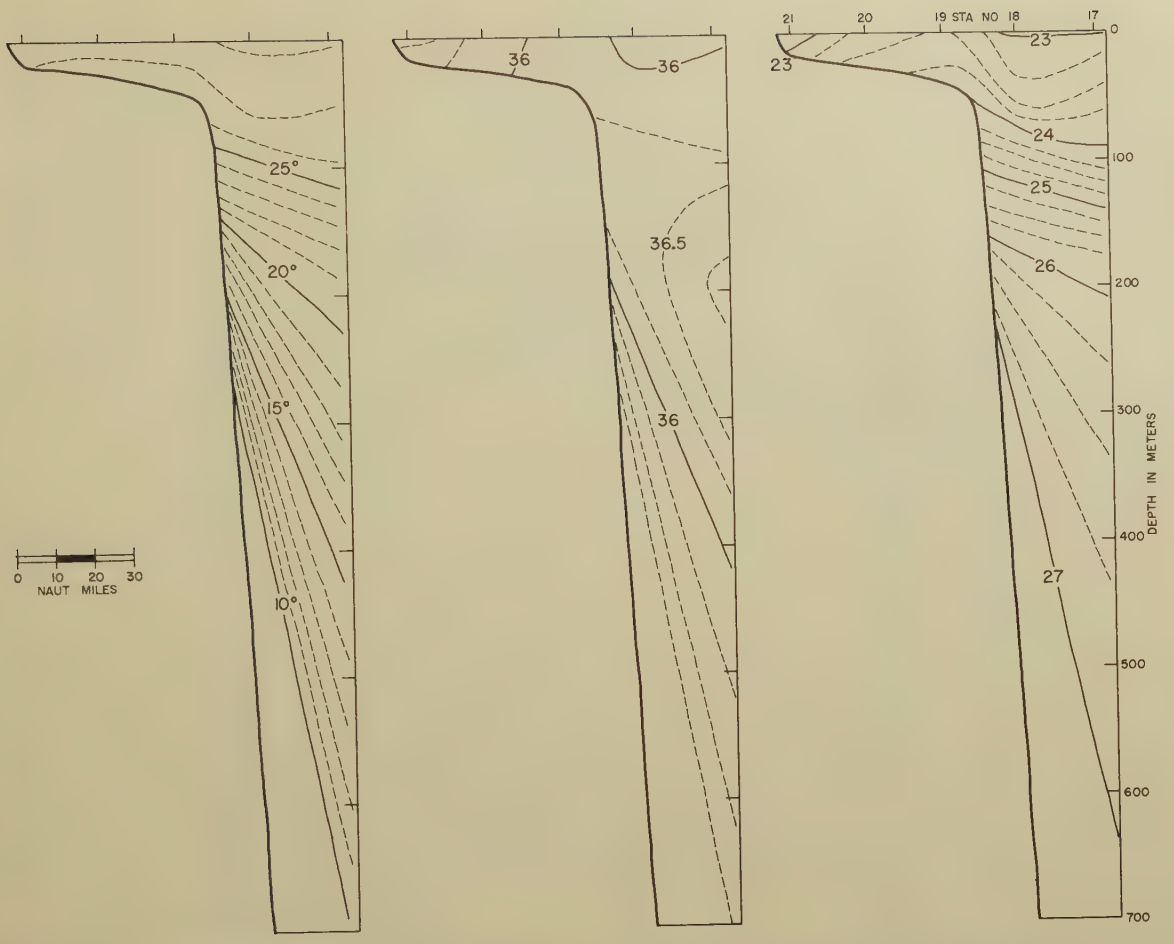

Figure 9.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 17, 18, 19, 20, and 21 (Matanzas Section).

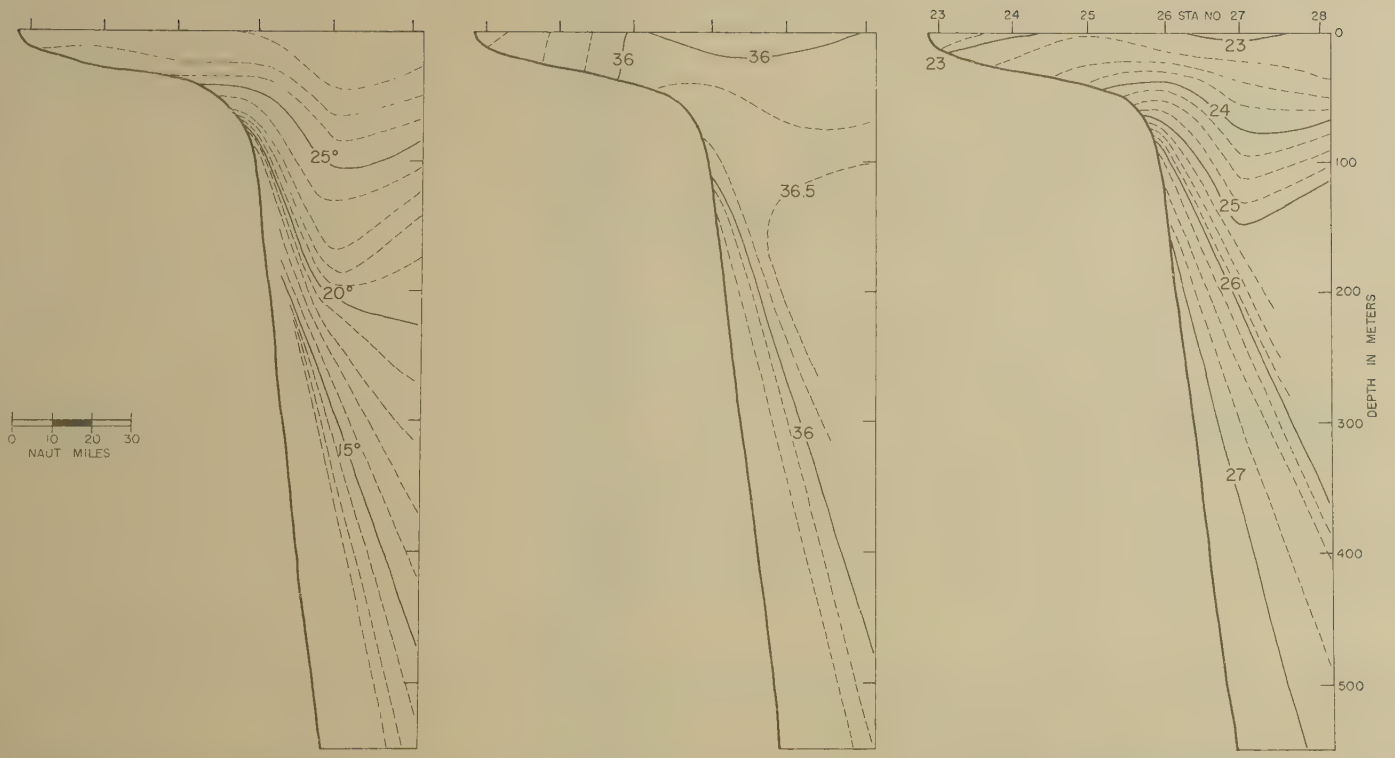

Figure 10.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 23, 24, 25, 26, 27, and 28 (Jacksonville Section).

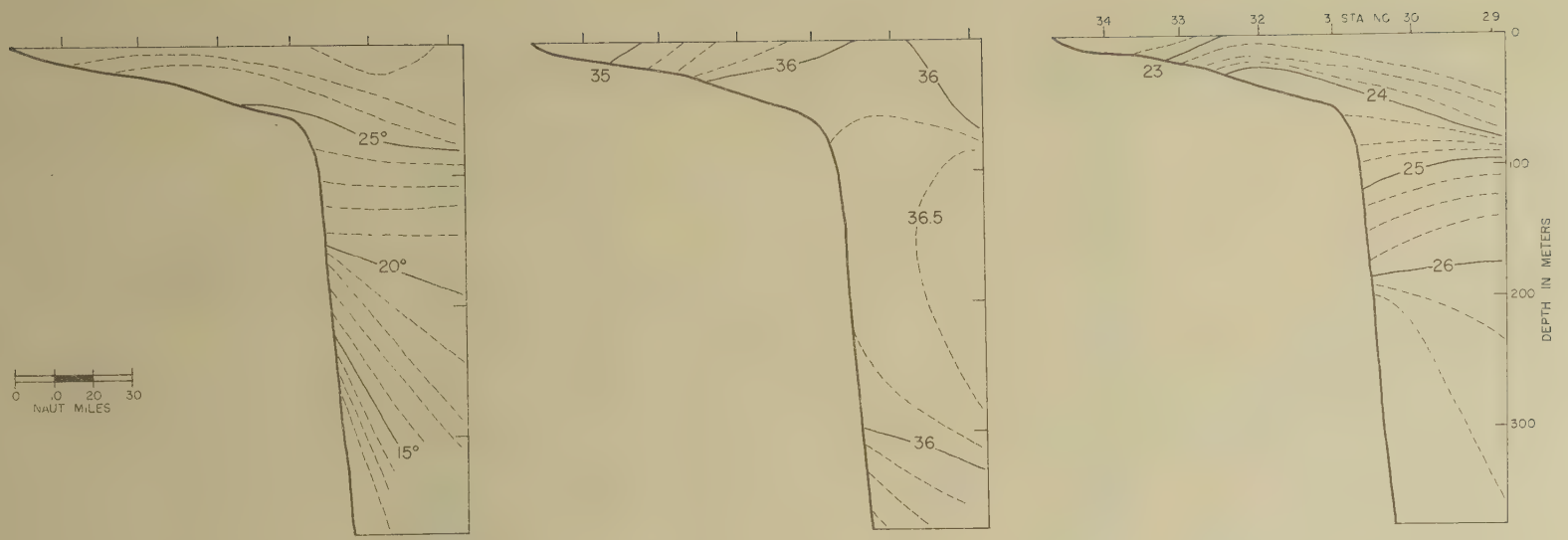

Figure 11.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 29, 30, 31, 32, 33, and 34 (Brunswick Section).

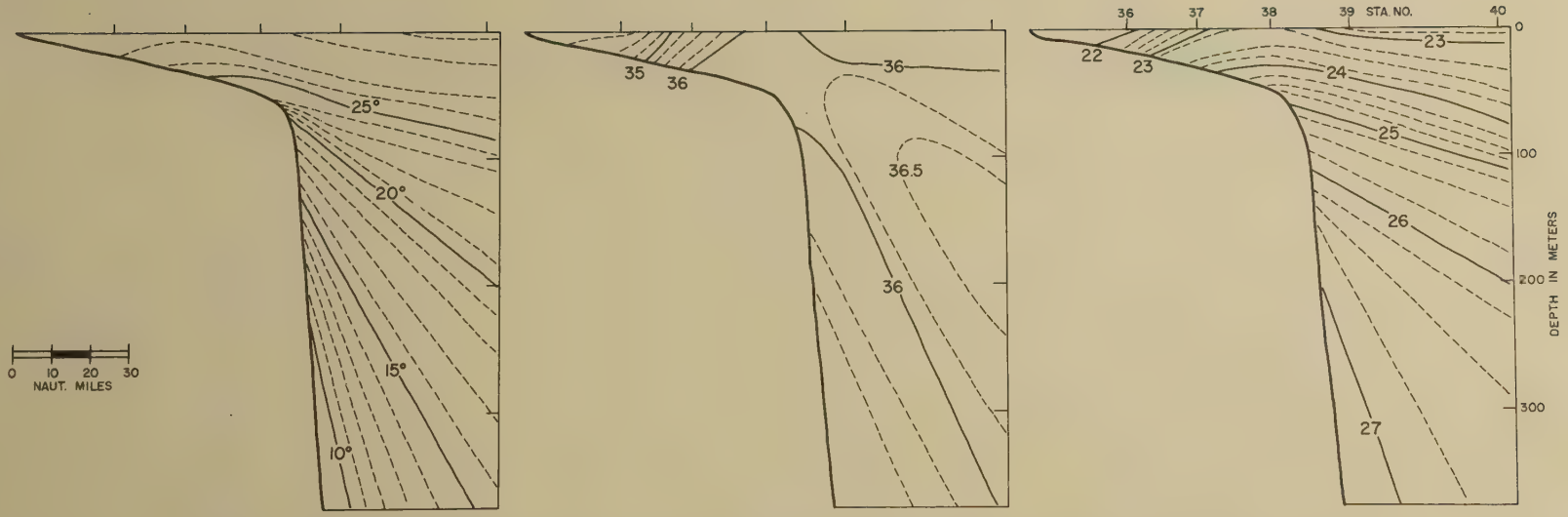

Figure 12.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 36, 37, 38, 39, and 40 (Savannah Section).

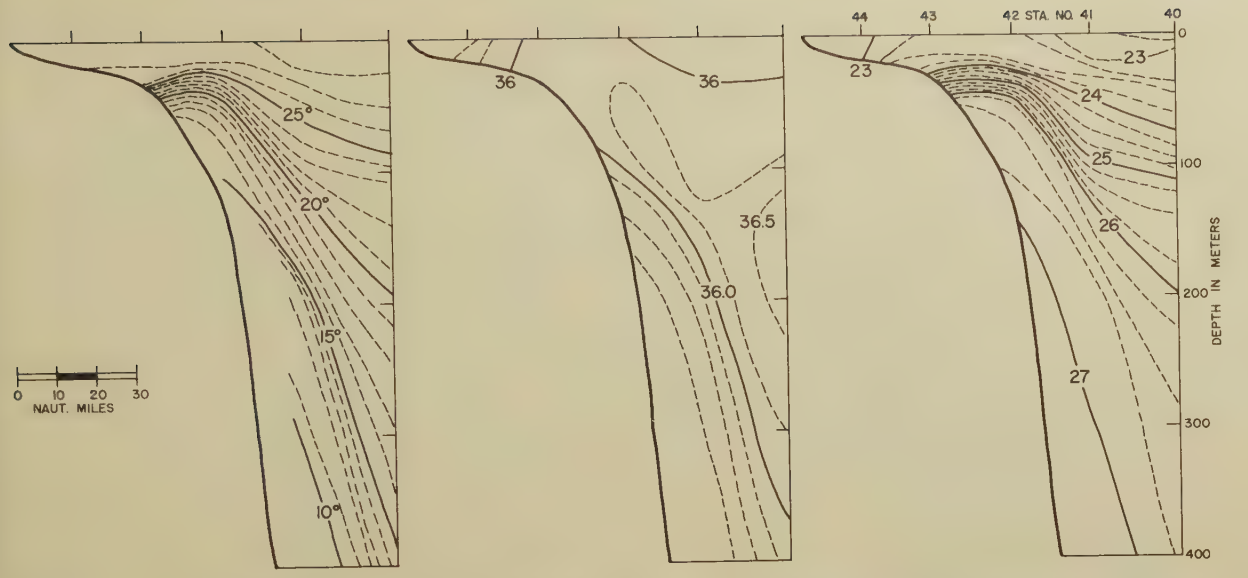

Figure 13.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 40, 41, 42, 43, and 44 (Charleston Section).

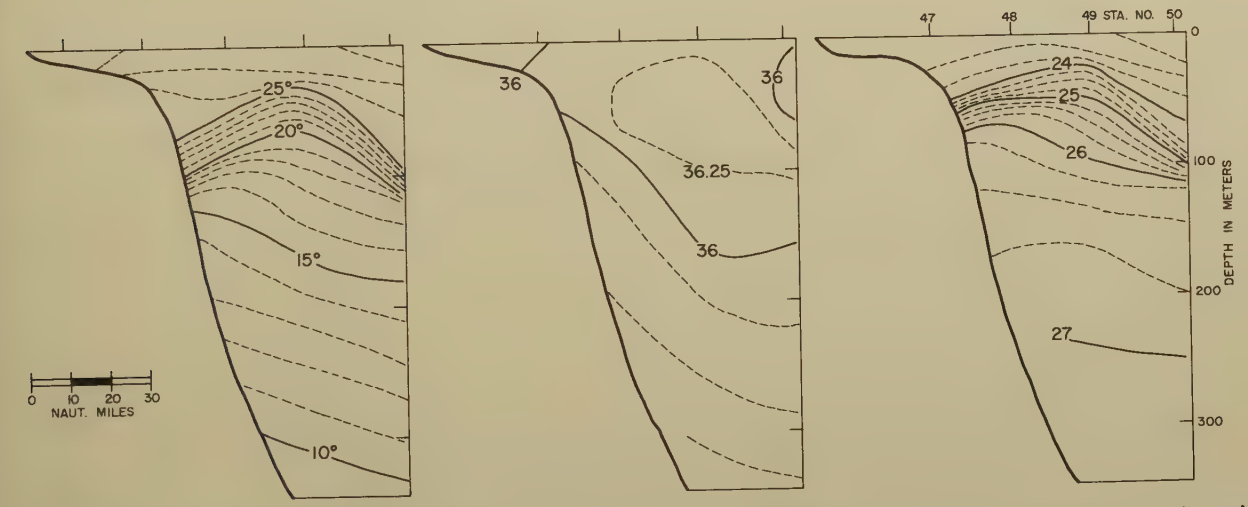

Figure 14.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 47, 48, 49, and 50 (Cape Romain Section).

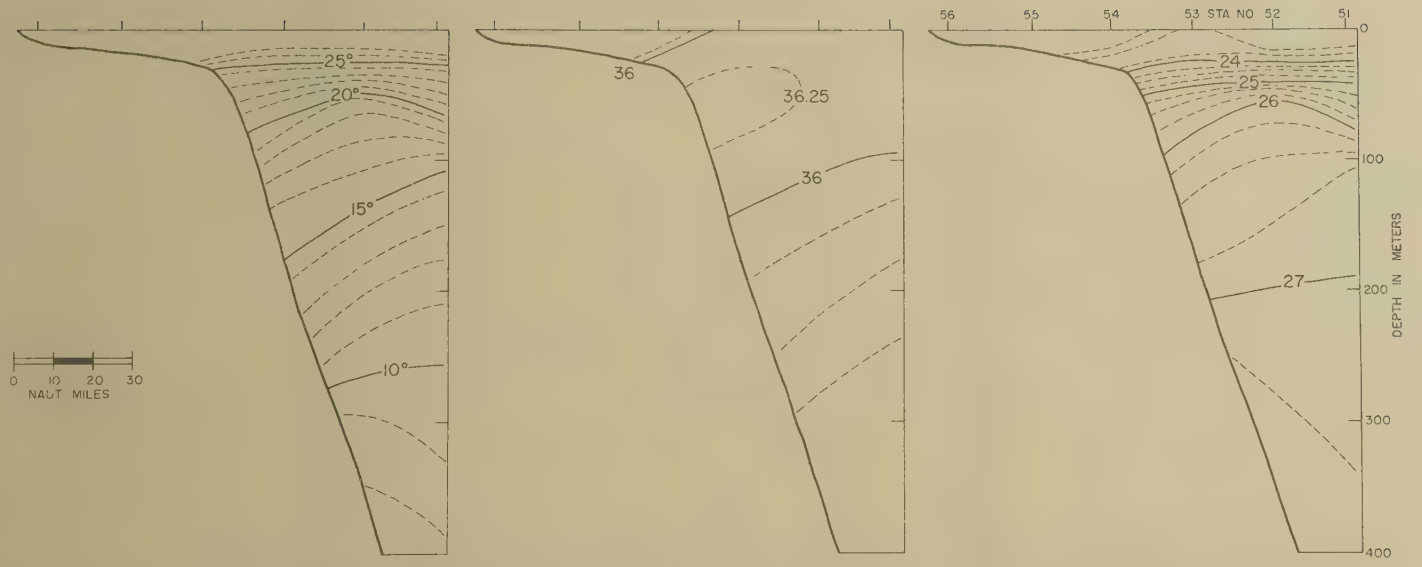

Figure 15.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 51, 52, 53, 54, 55, and 56 (Long Bay Section).

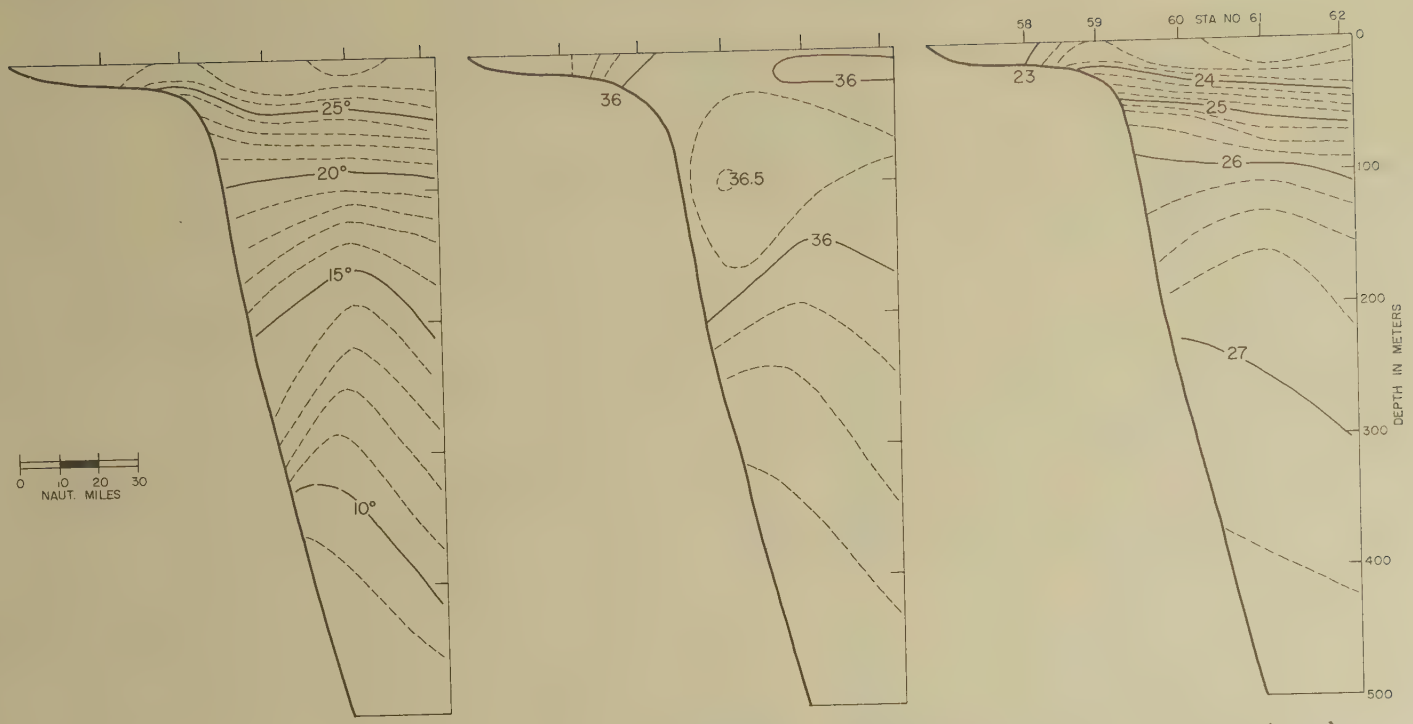

Figure 16.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 58, 59, 60, 61, and 62 (Cape Fear Section).

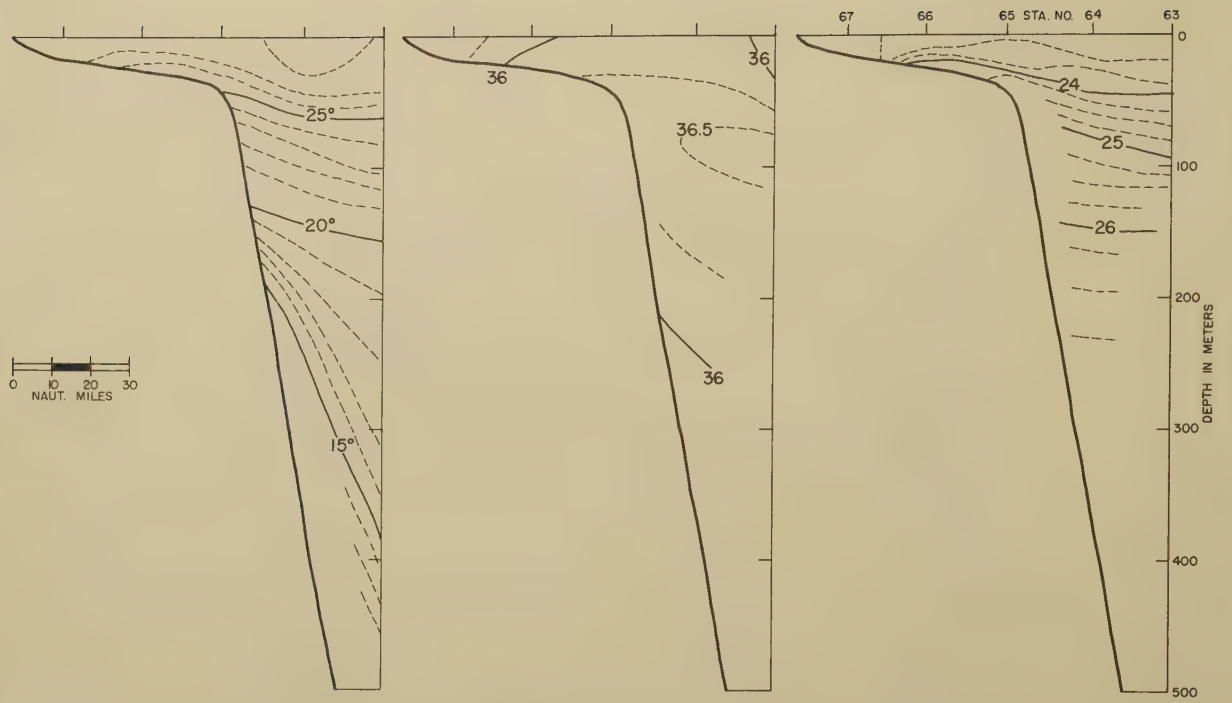

Figure 17.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 63, 64, 65, 66, and 67 (Onslow Bay Section).

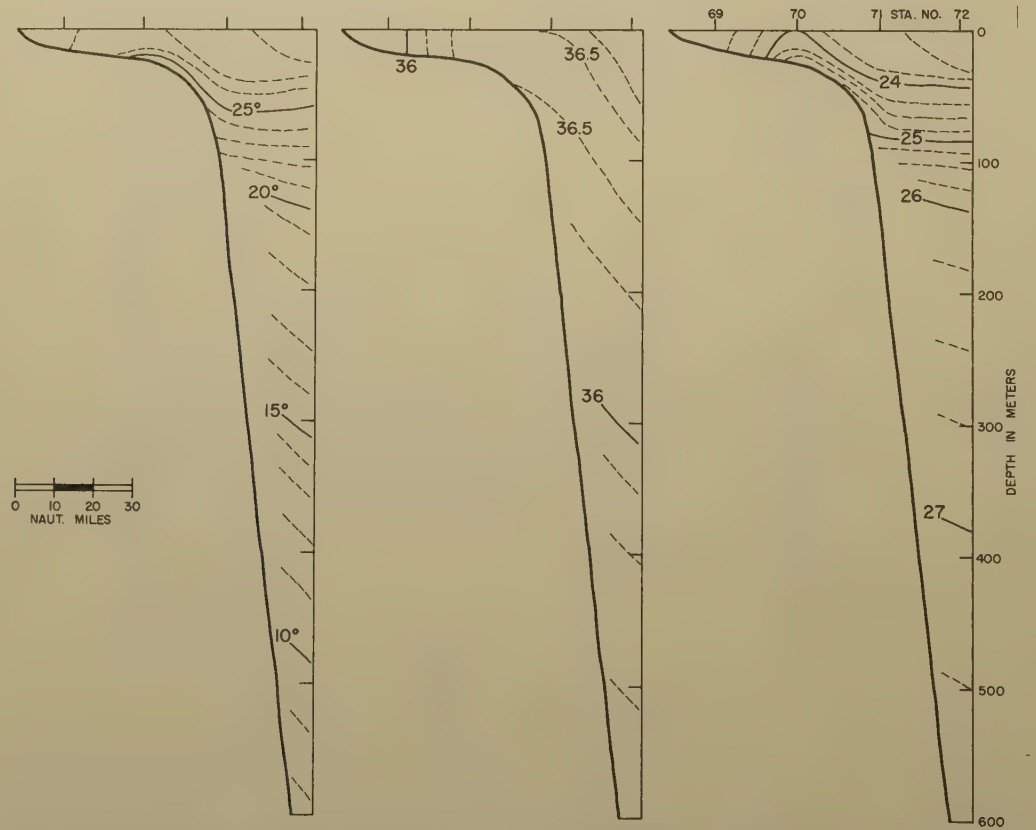

Figure 18.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 69, 70, 71, and 72 (Cape Lookout Section).

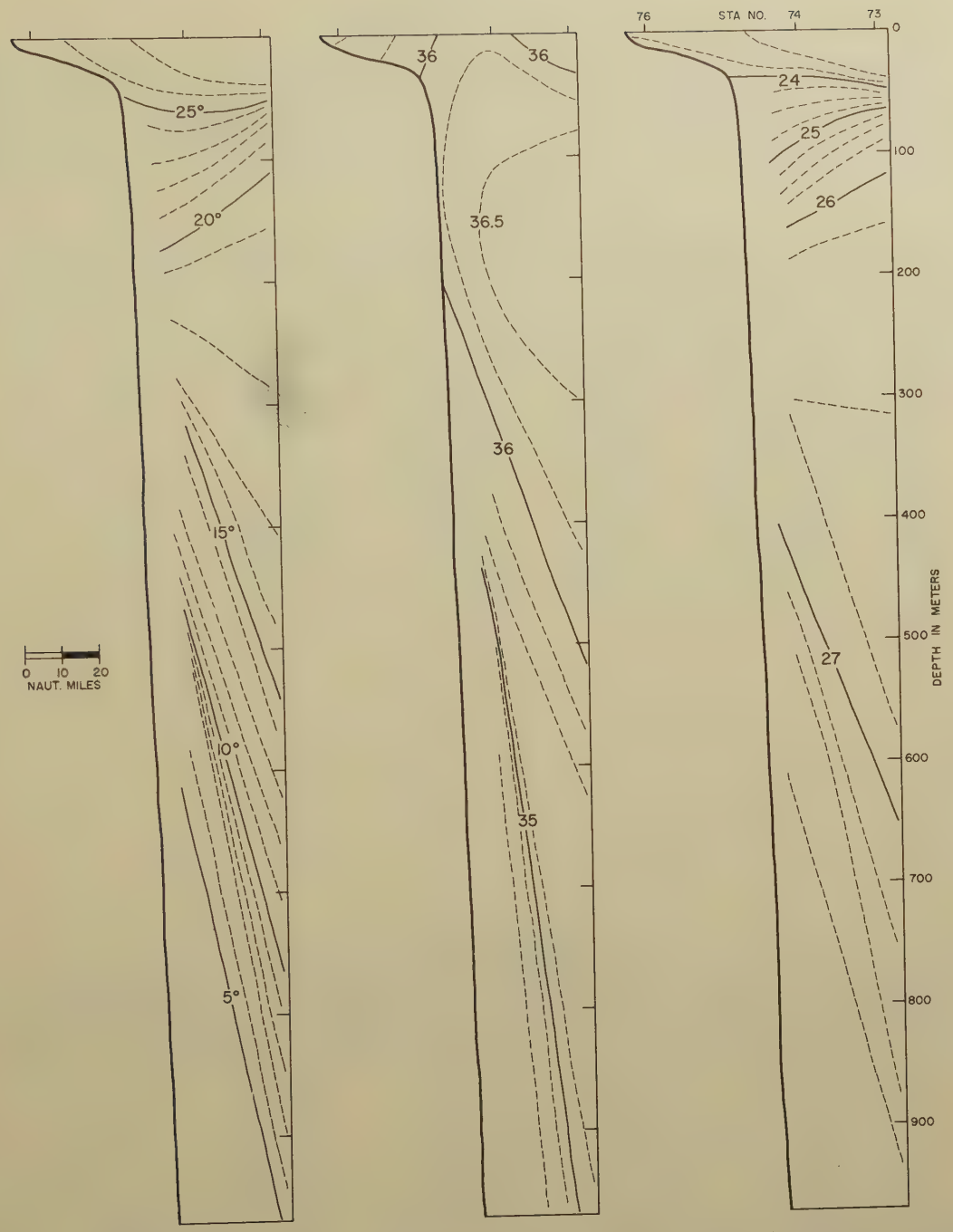

Figure 19.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 73, 74, and 76 (Raleigh Bay Section).

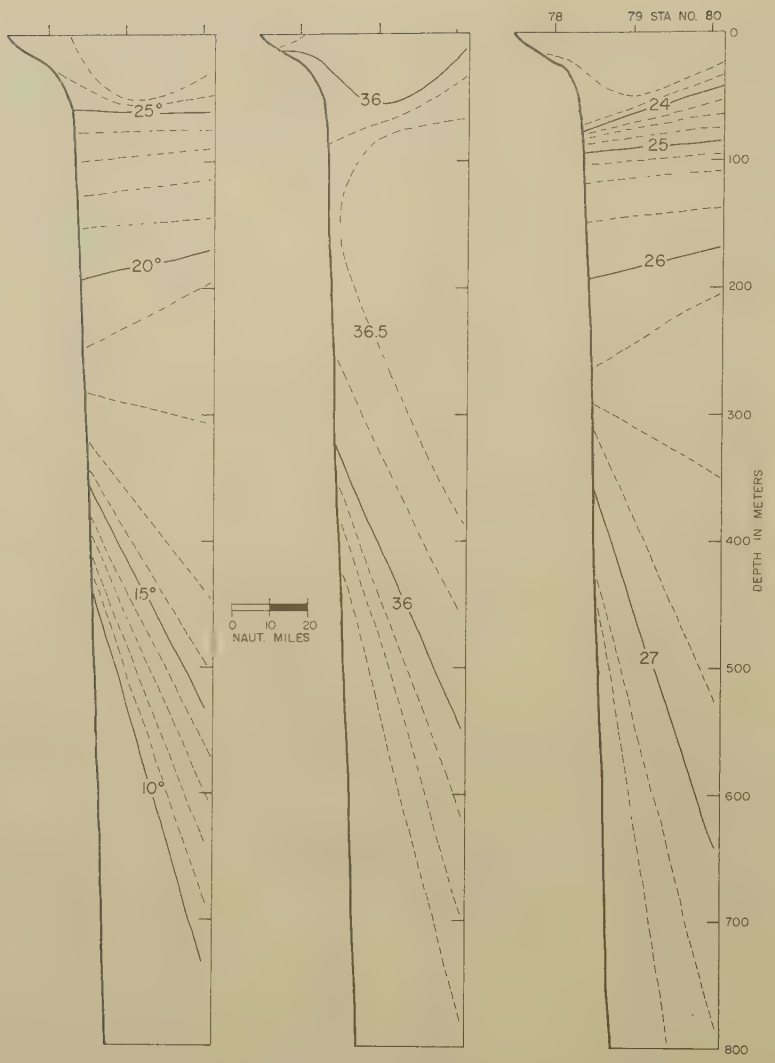

Figure 20.--Distribution of temperature (°C), salinity (‰), and density (σ_t) across section of stations 78, 79, and 80 (Hatteras Section).

STATION 1

DATE June 23, 1954 LAT. 27°00'N. LONG. 79°18'W. TIME 08
DEPTH 636 WIND 2 , 04 BAR. 18 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84 % WEATHER 01 CLOUDS: type 5 , amt. 2 SEA: dir. - , amt. 1
SWELL: dir. 15 , amt. 2 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.00	36.02	23.18	4.64
10	27.98	36.08	23.23	4.58
20	27.90	36.03	23.22	4.58
50	27.69	36.00	23.27	4.61
100	23.74	36.55	24.91	3.90
150	21.23	36.78	25.80	4.09
200	18.79	36.63	26.34	4.19
300	17.50	36.47	26.54	4.32
400	15.04	36.01	26.76	3.47
500	13.02	35.68	26.93	3.12

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.00	36.02	23.18	4.64
10	27.98	36.08	23.23	4.58
20	27.90	36.03	23.22	4.58
30	27.83	36.02	23.24	4.59
50	27.69	36.00	23.27	4.61
75	25.54	36.32	24.19	4.14
100	23.74	36.55	24.91	3.90
150	21.23	36.78	25.80	4.09
200	18.79	36.63	26.34	4.19
250	18.29	36.59	26.43	4.26
300	17.50	36.47	26.54	4.32
400	15.04	36.01	26.76	3.47
500	13.02	35.68	26.93	3.12

STATION 1

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.4	0.5	0.8	0.9
10	1.2	1.3	0.0	0.1	0.8
20	1.2	-	0.0	0.0	0.8
50	1.4	1.2	2.0	-	0.8
100	1.7	-	2.0	0.7	0.2
150	1.3	-	1.0	1.5	1.2
200	-	1.1	3.5	-	0.6
300	-	-	2.0	0.4	0.4
400	2.4	1.1	3.5	0.9	0.6
500	2.1	1.2	1.0	0.0	1.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.4	0.5	0.8	0.9
10	1.2	1.3	0.0	0.1	0.8
20	1.2	1.3	0.0	0.0	0.8
30	1.3	1.2	0.5	-	0.8
50	1.4	1.2	2.0	-	0.8
75	1.6	1.2	2.0	-	0.5
100	1.7	1.2	2.0	0.7	0.2
150	1.3	1.1	1.0	1.5	1.2
200	1.5	1.1	3.5	1.1	0.6
250	1.7	1.1	3.0	0.7	0.5
300	1.9	1.1	2.0	0.4	0.4
400	2.4	1.1	3.5	0.9	0.6
500	2.1	1.2	1.0	0.0	1.4

STATION 2

DATE June 23, 1954 LAT. 27°01'N. LONG. 79°40'W. TIME 12
DEPTH 530 WIND -, - BAR. 18 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 87% WEATHER 01 CLOUDS: type 5, amt. 2 SEA: dir. -, amt. 1
SWELL: dir. 36, amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.99	35.66	22.92	4.57
10	28.07	35.89	23.06	4.57
20	27.52	36.13	23.42	4.70
50	24.52	36.34	24.52	-
100	20.65	36.38	25.66	4.73
150	18.41	36.43	26.28	3.32
200	16.84	36.25	26.53	3.47
300	12.69	35.63	26.96	3.04
400	7.97	35.04	27.33	2.97

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.99	35.66	22.92	4.57
10	28.07	35.89	23.06	4.57
20	27.52	36.13	23.42	4.70
30	26.46	36.22	23.83	4.70
50	24.52	36.34	24.52	4.71
75	22.38	36.36	25.16	4.72
100	20.65	36.38	25.66	4.73
150	18.41	36.43	26.28	3.32
200	16.84	36.25	26.53	3.47
250	14.84	35.94	26.75	3.21
300	12.69	35.63	26.96	3.04
400	7.97	35.04	27.33	2.97

STATION 2

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.5	<0.5	1.4	2.1
10	1.4	1.0	1.0	0.7	0.8
20	-	1.0	0.0	0.2	1.8
50	-	0.4	0.5	0.0	1.8
100	2.0	1.2	-	0.0	1.7
150	2.0	-	5.0	0.6	-
200	2.0	1.0	3.5	0.2	1.5
300	1.6	1.7	7.5	0.0	1.0
400	3.1	-	2.5	0.0	1.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.5	<0.5	1.4	2.1
10	1.4	1.0	1.0	0.7	0.8
20	-	1.0	0.0	0.2	1.8
30	-	0.8	<0.5	0.1	1.8
50	-	0.4	0.5	0.0	1.8
75	-	0.8	2.0	0.0	1.8
100	2.0	1.2	3.0	0.0	1.7
150	2.0	1.1	5.0	0.6	1.6
200	2.0	1.0	3.5	0.2	1.5
250	1.8	1.4	5.5	0.1	1.3
300	1.6	1.7	7.5	0.0	1.0
400	3.1	-	2.5	0.0	1.8

STATION 3

DATE June 23, 1954 LAT. 27°00'N. LONG. 80°04'W. TIME 13
DEPTH 11 WIND 4 , 36 BAR. 19 AIR TEMP: dry 26.7°C, wet 25.6°C
HUMIDITY 91% WEATHER 02 CLOUDS: type 8 , amt. 4 SEA: dir. 36 , amt. 1
SWELL: dir. 36 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.38	33.97	22.16	4.79
10	26.05	35.29	23.26	4.75

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.38	33.97	22.16	4.79
10	26.05	35.29	23.26	4.75

STATION 3

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.8	-	0.5	0.9	1.4
10	0.7	0.4	<0.5	0.5	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.8	-	0.5	0.9	1.4
10	0.7	0.4	<0.5	0.5	0.7

STATION 4

DATE June 23, 1954 LAT. 27°20'N. LONG. 80°04'W. TIME 18
DEPTH 20 WIND 1 , 16 BAR. 19 AIR TEMP: dry 28.9°C, wet 26.1°C
HUMIDITY 80% WEATHER 03 CLOUDS: type 4 , amt. 7 SEA: dir. 00 , amt. 0
SWELL: dir. 02 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.10	36.03	23.48	4.64
10	26.02	35.75	23.61	4.61

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.10	36.03	23.48	4.64
10	26.02	35.75	23.61	4.61

STATION 4

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	1.0	1.0	1.1	1.8
10	1.1	-	<0.5	1.9	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	1.0	1.0	1.1	1.8
10	1.1	-	<0.5	1.9	0.9

STATION 5

DATE June 23, 1954 LAT. 27°40'N. LONG. 80°04'W. TIME 20
DEPTH 23 WIND 3 , 17 BAR. 18 AIR TEMP: dry 27.8°C, wet 26.7°C
HUMIDITY 92% WEATHER 63 CLOUDS: type 8 , amt. 8 SEA: dir. 17 , amt. 1
SWELL: dir. 02 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.24	35.54	23.07	4.72
10	26.85	35.98	23.52	4.64
20	24.49	36.36	24.54	4.86

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.24	35.54	23.07	4.72
10	26.85	35.98	23.52	4.64
20	24.49	36.36	24.54	4.86

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STATION 5

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	-	0.5	0.0	0.7
10	-	1.1	<0.5	0.8	<0.1
20	1.2	0.5	0.5	0.6	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	-	0.5	0.0	0.7
10	1.0	1.1	<0.5	0.8	<0.1
20	1.2	0.5	0.5	0.6	0.6

STATION 6

DATE June 23, 1954 LAT. 27°39'N. LONG. 79°42'W. TIME 24
DEPTH 502 WIND 4 , 16 BAR. 18 AIR TEMP: dry 26.7°C, wet 25.0°C
HUMIDITY 87% WEATHER 02 CLOUDS: type 6 , amt. 8 SEA: dir. 17 , amt. 1
SWELL: dir. 02 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.37	35.93	22.99	4.42
10	28.29	36.08	23.13	4.63
19	28.15	36.12	23.21	4.66
49	26.15	36.26	23.96	4.74
98	22.21	36.45	25.28	4.32
147	19.64	36.58	26.08	3.56
197	17.47	36.31	26.42	3.61
296	14.95	35.94	26.72	3.16
396	10.60	35.30	27.10	3.00

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.37	35.93	22.99	4.42
10	28.29	36.08	23.13	4.63
20	28.09	36.12	23.23	4.67
30	27.45	36.17	23.47	4.72
50	26.06	36.26	23.99	4.73
75	23.89	36.37	24.73	4.56
100	22.10	36.46	25.32	4.27
150	19.49	36.56	26.10	3.57
200	17.42	36.30	26.43	3.59
250	16.34	36.14	26.56	3.33
300	14.81	35.92	26.74	3.15

STATION 6

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	1.4	0.0	0.6	0.3
10	1.1	0.7	<0.5	0.0	0.5
19	1.9	0.1	0.5	-	1.2
49	1.1	0.2	0.5	2.4	1.4
98	1.3	-	-	1.0	0.2
147	1.5	-	3.5	0.1	0.3
197	1.8	-	4.5	0.0	1.8
296	1.8	1.2	0.5	-	1.1
396	2.9	-	2.0	0.0	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	1.4	0.0	0.6	0.3
10	1.1	0.7	<0.5	0.0	0.5
20	1.9	0.1	0.5	0.6	1.2
30	1.6	0.1	0.5	1.2	1.3
50	1.1	0.2	0.5	2.4	1.4
75	1.2	-	1.5	1.7	0.8
100	1.3	-	2.0	1.0	0.2
150	1.5	-	3.5	0.1	0.3
200	1.8	-	4.5	0.0	1.8
250	1.8	-	2.5	0.0	1.5
300	1.8	1.2	0.5	0.0	1.1
400	2.9	-	2.0	0.0	0.7

STATION 7

DATE June 24, 1954 LAT. 27°40'N. LONG. 79°18'W. TIME 04
DEPTH 570 WIND - , - BAR. 18 AIR TEMP: dry 27.2°C, wet 25.6°C
HUMIDITY 87% WEATHER 61 CLOUDS: type - , amt. - SEA: dir. 00 , amt. 0
SWELL: dir. 02 , amt. 1 VIS. 5 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.08	35.85	23.03	4.48
10	27.85	35.82	23.08	4.47
19	27.86	35.96	23.18	4.45
47	27.41	35.97	23.34	4.56
95	24.13	36.56	24.80	4.11
144	21.41	36.69	25.69	4.25
192	19.50	36.70	26.21	4.25
290	17.93	36.48	26.44	4.25
389	15.89	36.15	26.67	4.52
488	13.62	35.75	26.86	4.08

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.08	35.85	23.03	4.48
10	27.85	35.82	23.08	4.47
20	27.86	35.96	23.18	4.46
30	27.81	35.96	23.20	4.53
50	27.19	36.02	23.45	4.51
75	25.42	36.37	24.27	4.23
100	23.82	36.58	24.91	4.13
150	21.13	36.70	25.77	4.25
200	19.39	36.69	26.23	4.25
250	18.62	36.58	26.34	4.25
300	17.73	36.45	26.47	4.31
400	15.65	36.11	26.70	4.51

STATION 7

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.7	0.0	0.0	1.5
10	1.3	0.4	0.5	0.5	0.3
19	1.5	0.1	<0.5	0.0	1.2
47	1.2	-	<0.5	5.3	0.8
95	3.5	0.4	0.5	0.3	1.4
144	5.5	3.5	0.5	0.0	0.6
192	1.2	0.7	1.0	0.0	1.8
290	4.8	0.9	0.5	0.0	1.0
389	1.8	1.3	8.0	11.9	0.8
488	5.3	1.6	11.0	-	1.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.7	0.0	0.0	1.5
10	1.3	0.4	0.5	0.5	0.3
20	1.5	0.1	<0.5	0.0	1.2
30	1.4	-	<0.5	-	1.1
50	1.2	-	<0.5	5.3	0.8
75	2.4	-	0.5	-	1.1
100	3.5	0.4	0.5	0.3	1.4
150	5.5	3.5	0.5	0.0	0.6
200	1.2	0.7	1.0	0.0	1.8
250	3.0	0.8	1.0	0.0	1.4
300	4.8	0.9	0.5	0.0	1.0
400	1.8	1.3	8.0	11.9	0.8
500	5.3	1.6	11.0	-	1.9

STATION 8

DATE June 24, 1954 LAT. 28°19'N. LONG. 79°26'W. TIME 12
DEPTH 786 WIND 3 , 22 BAR. 18 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 83% WEATHER 01 CLOUDS: type 5 , amt. 3 SEA: dir. 22 , amt. 1
SWELL: dir. 02 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.65	35.82	23.15	4.62
10	27.65	35.79	23.12	4.59
19	27.66	35.82	23.14	-
48	27.28	36.00	23.40	4.65
96	24.80	36.47	24.53	4.77
145	21.82	36.73	25.60	4.42
194	20.45	36.72	25.97	4.42
293	18.30	36.51	26.37	4.52
393	16.97	36.31	26.54	4.22
492	13.02	35.62	26.89	3.09
683	8.23	35.01	27.27	3.05

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.65	35.82	23.15	4.62
10	27.65	35.79	23.12	4.59
20	27.66	35.82	23.14	4.60
30	27.61	35.88	23.20	4.62
50	27.19	36.02	23.45	4.66
75	25.94	36.29	24.05	4.72
100	24.50	36.50	24.65	4.73
150	21.67	36.73	25.64	4.42
200	20.30	36.71	26.00	4.44
250	19.13	36.60	26.23	4.48
300	18.29	36.51	26.37	4.50
400	16.66	36.25	26.57	4.12
500	12.74	35.58	26.91	3.09
600	9.85	35.16	27.12	3.07

STATION 8

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.5	2.1	1.0	2.0	0.0
10	2.2	1.0	<0.5	0.0	-
19	4.1	3.5	<0.5	2.6	1.5
48	5.0	1.2	<0.5	0.4	0.9
96	1.9	0.0	<0.5	0.8	0.8
145	1.1	0.6	<0.5	1.6	1.1
194	0.6	0.4	0.5	0.0	1.8
293	1.5	0.4	1.5	0.0	1.5
393	1.3	1.3	4.0	0.0	1.6
492	3.1	1.7	19.5	0.0	1.5
683	2.9	3.0	1.0	0.1	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.5	2.1	1.0	2.0	0.0
10	2.2	1.0	<0.5	0.0	0.7
20	4.1	3.5	<0.5	2.6	1.5
30	4.4	2.7	<0.5	1.9	1.3
50	5.0	1.2	<0.5	0.4	0.9
75	3.5	0.6	<0.5	0.6	0.8
100	1.9	0.0	<0.5	0.8	0.8
150	1.1	0.6	<0.5	1.6	1.1
200	0.6	0.4	0.5	0.0	1.8
250	1.1	0.4	1.0	0.0	1.7
300	1.5	0.4	1.5	0.0	1.5
400	1.3	1.3	4.0	0.0	1.6
500	3.1	1.7	19.5	0.0	1.5
600	3.0	2.4	10.5	<0.1	1.2

STATION 9

DATE June 24, 1954 LAT. 28°20'N. LONG. 79°48'W. TIME 16
DEPTH 427 WIND 4 , 25 BAR. 18 AIR TEMP: dry 28.9°C, wet 26.1°C
HUMIDITY 80% WEATHER 01 CLOUDS: type 8 , amt. 2 SEA: dir. 25 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.40	35.99	23.03	-
8	28.14	35.99	23.11	-
17	27.95	35.95	23.15	4.57
43	27.58	36.02	23.32	4.65
86	24.81	36.42	24.49	4.27
130	21.86	36.51	25.42	4.07
174	20.02	36.62	26.01	3.57
262	16.56	36.18	26.54	3.22
352	9.02	35.09	27.21	3.00

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.40	35.99	23.03	-
10	28.10	35.98	23.12	-
20	27.91	35.95	23.16	4.59
30	27.89	35.97	23.18	4.64
50	27.14	36.11	23.53	4.58
75	25.53	36.35	24.22	4.35
100	23.75	36.45	24.83	4.24
150	21.01	36.59	25.72	3.82
200	19.40	36.55	26.12	3.45
250	17.26	36.28	26.45	3.26
300	13.87	35.80	26.85	3.11

STATION 9

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	1.3	<0.5	0.0	1.1
8	2.9	0.3	<0.5	-	-
17	-	-	0.5	0.3	1.6
43	2.2	1.1	<0.5	0.1	0.8
86	2.0	-	0.0	0.0	1.8
130	1.6	0.9	3.0	0.0	0.0
174	1.7	1.9	0.5	0.0	0.4
262	2.3	1.5	1.0	6.7	1.0
352	3.4	-	8.5	0.0	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	1.3	<0.5	0.0	1.1
10	2.9	0.4	0.5	0.2	1.4
20	2.7	0.6	0.5	0.3	1.5
30	2.5	0.8	<0.5	0.2	1.2
50	2.2	1.1	<0.5	0.1	1.0
75	2.1	1.0	<0.5	0.0	1.5
100	1.9	1.0	1.0	0.0	1.2
150	1.7	1.4	2.0	0.0	0.2
200	1.9	1.8	0.5	2.0	0.6
250	2.3	1.6	1.0	5.8	0.9
300	2.8	-	4.0	3.9	-

STATION 10

DATE June 24, 1954 LAT. 28°20'N. LONG. 80°10'W. TIME 19
DEPTH 42 WIND 2 , 17 BAR. 18 AIR TEMP: dry 28.3°C, wet 24.4°C
HUMIDITY 72% WEATHER 01 CLOUDS: type 8 , amt. 2 SEA: dir. - , amt. -
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.30	35.86	22.96	4.57
10	27.82	36.08	23.29	4.46
20	26.87	36.19	23.68	4.76

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.30	35.86	22.96	4.57
10	27.82	36.08	23.29	4.46
20	26.87	36.19	23.68	4.76

STATION 10

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	3.0	2.4	<0.5	7.4	0.7
10	1.2	0.6	0.5	0.5	0.4
20	2.0	0.8	<0.5	0.1	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	3.0	2.4	<0.5	7.4	0.7
10	1.2	0.6	0.5	0.5	0.4
20	2.0	0.8	<0.5	0.1	0.6

STATION 11

DATE June 24, 1954 LAT. 28°20'N. LONG. 80°33'W. TIME 22
DEPTH 11 WIND 6 , 14 BAR. 16 AIR TEMP: dry 27.2°C, wet 26.1°C
HUMIDITY 91% WEATHER 03 CLOUDS: type 5 , amt. 6 SEA: dir. 14 , amt. 2
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.85	36.07	23.59	4.96
7	26.05	36.04	23.82	5.03

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.85	36.07	23.59	4.96

STATION 11

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.4	0.4	0.5	1.5	1.7
7	1.9	-	<0.5	0.0	1.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.4	0.4	0.5	1.5	1.7
10	1.9	-	<0.5	0.0	1.6

STATION 12

DATE June 25, 1954 LAT. 28°41'N. LONG. 80°25'W. TIME 01
DEPTH 18 WIND 5 , 20 BAR. 17 AIR TEMP: dry 26.7°C, wet 25.0°C
HUMIDITY 87% WEATHER 21 CLOUDS: type 5 , amt. 7 SEA: dir. 20 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.66	36.07	23.65	4.90
10	26.32	36.06	23.75	4.65

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.66	36.07	23.65	4.90
10	26.32	36.06	23.75	4.65

STATION 12

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	1.1	<0.5	2.1	1.1
10	1.3	0.5	0.5	1.6	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	1.1	<0.5	2.1	1.1
10	1.3	0.5	0.5	1.6	0.2

STATION 13

DATE June 25, 1954 LAT. 29°00'N. LONG. 80°32'W. TIME 03
DEPTH 20 WIND 7 , 25 BAR. 17 AIR TEMP: dry 26.7°C, wet 24.4°C
HUMIDITY 83% WEATHER 01 CLOUDS: type -, amt. - SEA: dir. 25 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.59	36.06	23.67	4.77
10	26.56	36.00	23.63	4.66

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.59	36.06	23.67	4.77
10	26.56	36.00	23.63	4.66

STATION 13

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.7	-	0.0	0.8	0.8
10	2.7	0.6	<0.5	-	1.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.7	-	0.0	0.8	0.8
10	2.7	0.6	<0.5	-	1.1

STATION 14

DATE June 25, 1954 LAT. 29°00'N. LONG. 80°10'W. TIME 06
DEPTH 60 WIND 6 , 24 BAR. 17 AIR TEMP: dry 26.7°C, wet 23.9°C
HUMIDITY 79% WEATHER 01 CLOUDS: type - , amt. - SEA: dir. 24 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.85	36.11	23.62	4.74
10	26.72	36.15	23.69	4.71
20	26.30	36.12	23.80	4.65
30	25.97	36.11	23.90	4.67
50	25.35	36.11	24.09	4.70

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.85	36.11	23.62	4.74
10	26.72	36.15	23.69	4.71
20	26.30	36.12	23.80	4.65
30	25.97	36.11	23.90	4.67
50	25.35	36.11	24.09	4.70

STATION 14

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.4	0.4	-	1.9	1.6
10	1.3	0.5	0.0	0.0	1.2
20	0.8	0.6	1.0	0.0	1.5
30	2.0	1.3	0.5	0.8	1.2
50	0.8	0.5	0.5	0.8	1.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.4	0.4	-	1.9	1.6
10	1.3	0.5	0.0	0.0	1.2
20	0.8	0.6	1.0	0.0	1.5
30	2.0	1.3	0.5	0.8	1.2
50	0.8	0.5	0.5	0.8	1.2

STATION 15

DATE June 25, 1954 LAT. 28°59'N. LONG. 79°48'W. TIME 10
DEPTH 695 WIND 5 , 27 BAR. 16 AIR TEMP: dry 26.7°C, wet 25.0°C
HUMIDITY 87% WEATHER 02 CLOUDS: type - , amt. - SEA: dir. 27 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.68	35.70	23.05	4.56
9	27.66	35.70	23.05	4.57
17	27.43	35.70	23.13	4.62
42	27.33	35.84	23.27	4.63
85	25.63	36.36	24.20	4.44
128	23.06	36.73	25.25	4.18
170	20.86	36.70	25.84	3.66
255	17.76	36.38	26.41	3.36
342	12.73	35.66	26.98	3.04
512	7.07	34.97	27.41	3.15

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.68	35.70	23.05	4.56
10	27.63	35.70	23.06	4.58
20	27.42	35.71	23.14	4.62
30	27.38	35.76	23.19	4.63
50	27.08	35.95	23.43	4.60
75	26.10	36.25	23.97	4.49
100	24.70	36.54	24.62	4.38
150	21.85	36.72	25.59	3.88
200	19.97	36.63	26.03	3.56
250	17.99	36.41	26.37	3.38
300	14.98	35.98	26.75	3.16
400	10.18	35.32	27.19	3.08
500	7.29	34.99	27.39	3.11

STATION 15

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.2	0.4	1.0	0.0	0.7
9	1.4	0.4	0.0	0.0	1.1
17	3.2	0.4	0.5	0.0	1.9
42	1.5	0.5	0.0	0.0	1.4
85	1.0	0.4	0.0	8.1	0.3
128	3.1	0.4	1.5	0.0	0.7
170	0.9	0.8	<0.5	0.3	1.3
260	1.3	1.3	-	0.0	1.1
342	2.1	-	17.0	0.0	1.5
512	2.7	2.8	18.5	0.2	1.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.2	0.4	1.0	0.0	0.7
10	1.4	0.4	0.0	0.0	1.1
20	3.0	0.4	0.5	0.0	1.8
30	2.3	0.5	<0.5	0.0	1.6
50	1.4	0.5	0.0	0.0	1.2
75	1.1	0.4	0.0	8.1	0.6
100	1.7	0.4	0.5	-	0.5
150	2.0	0.6	1.0	0.2	1.0
200	1.0	1.0	3.0	0.2	1.3
250	1.3	1.2	8.0	0.1	1.2
300	1.7	1.5	13.0	0.0	1.3
400	2.3	2.2	17.5	0.1	1.5
500	2.6	2.7	18.5	0.2	1.5

STATION 16

DATE June 25, 1954 LAT. 29°00'N. LONG. 79°26'W. TIME 14
DEPTH 823 WIND 4 , 22 BAR. 18 AIR TEMP: dry 29.4°C, wet 26.7°C
HUMIDITY 80% WEATHER 01 CLOUDS: type 5 , amt. 1 SEA: dir. 23 , amt. 2
SWELL: dir. - , amt. - VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.15	36.27	23.32	4.46
10	28.13	36.13	23.22	4.63
20	27.95	36.09	23.25	4.63
50	26.63	36.09	23.68	4.59
100	24.22	36.60	24.81	4.57
150	22.22	36.74	25.50	4.13
200	20.65	36.77	25.95	4.40
300	18.41	36.56	26.38	4.40
400	16.94	36.36	26.59	4.13
500	14.25	35.84	26.80	3.09
700	9.14	35.16	27.24	2.96

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.15	36.27	23.32	4.46
10	28.13	36.13	23.22	4.63
20	27.95	36.09	23.25	4.63
30	27.52	36.09	23.39	4.61
50	26.63	36.09	23.68	4.59
75	25.37	36.39	24.30	4.58
100	24.22	36.60	24.81	4.57
150	22.22	36.74	25.50	4.13
200	20.65	36.77	25.95	4.40
250	19.43	36.66	26.20	4.40
300	18.41	36.56	26.38	4.40
400	16.94	36.36	26.59	4.13
500	14.25	35.84	26.80	3.09
600	11.65	35.44	27.02	3.02

STATION 16

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.5	0.5	0.0	0.0	1.0
10	1.0	0.8	0.5	-	1.4
20	1.8	1.8	1.5	10.1	0.7
50	1.2	0.3	0.5	10.6	1.3
100	1.6	0.4	0.5	-	1.6
150	1.8	1.4	0.5	1.9	2.3
200	0.9	0.4	0.0	0.0	0.3
300	0.7	0.8	1.0	0.3	1.4
400	0.9	0.8	1.5	2.7	0.9
500	2.1	1.7	5.0	-	1.4
700	2.5	-	4.5	0.0	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.5	0.5	0.0	0.0	1.0
10	1.0	0.8	0.5	-	1.4
20	1.8	1.8	1.5	10.1	0.7
30	1.6	1.3	1.0	10.3	0.9
50	1.2	0.3	0.5	10.6	1.3
75	1.4	0.3	0.5	-	1.5
100	1.6	0.4	0.5	-	1.6
150	1.8	1.4	0.5	1.9	2.3
200	0.9	0.4	0.0	0.0	0.3
250	0.8	0.6	0.5	0.2	0.8
300	0.7	0.8	1.0	0.3	1.4
400	0.9	0.8	1.5	2.7	0.9
500	2.1	1.7	5.0	-	1.4
600	2.3	-	5.0	-	0.8
700	2.5	-	4.5	0.0	0.2

STATION 17

DATE June 25, 1954 LAT. 29°38'N. LONG. 79°36'W. TIME 19
DEPTH 777 WIND 4 , 28 BAR. 17 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 2 , amt. 2 SEA: dir. 28 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.54	35.96	22.96	4.56
10	27.88	35.96	23.18	4.59
20	27.95	36.07	23.24	4.61
50	27.07	36.08	23.53	4.64
100	25.79	36.30	24.10	4.39
150	22.64	36.67	25.32	4.22
200	20.56	36.76	25.97	4.25
300	18.19	36.52	26.41	4.25
400	15.27	36.00	26.70	3.44
500	13.54	35.73	26.87	3.15
700	9.71	35.21	27.18	2.91

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.54	35.96	22.96	4.56
10	27.88	35.96	23.18	4.59
20	27.95	36.07	23.24	4.61
30	27.65	36.07	23.33	4.63
50	27.07	36.08	23.53	4.64
75	26.66	36.17	23.73	4.51
100	25.79	36.30	24.10	4.39
150	22.64	36.67	25.32	4.22
200	20.56	36.76	25.97	4.25
250	19.44	36.68	26.21	4.25
300	18.19	36.52	26.41	4.25
400	15.27	36.00	26.70	3.44
500	13.54	35.73	26.87	3.15
600	11.69	35.47	27.03	2.97

STATION 17

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.4	0.4	<0.5	1.4	1.7
10	1.5	1.6	<0.5	0.0	1.3
20	0.8	1.0	0.5	1.3	1.4
50	0.7	-	1.0	0.0	1.9
100	-	0.1	0.0	1.4	1.0
150	2.3	0.8	0.5	0.0	0.9
200	2.2	0.5	1.0	1.9	3.4
300	1.7	0.9	5.0	-	1.7
400	4.6	1.4	2.0	0.0	0.8
500	2.7	1.7	3.0	0.0	0.7
700	3.5	2.4	4.5	0.2	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.4	0.4	<0.5	1.4	1.7
10	1.5	1.6	<0.5	0.0	1.3
20	0.8	1.0	0.5	1.3	1.4
30	0.8	-	1.0	0.9	1.6
50	0.7	-	1.0	0.0	1.9
75	1.1	-	0.5	0.7	1.5
100	1.5	0.1	0.0	1.4	1.0
150	2.3	0.8	0.5	0.0	0.9
200	2.2	0.5	1.0	1.9	3.4
250	2.0	0.7	3.0	-	2.6
300	1.7	0.9	5.0	-	1.7
400	4.6	1.4	2.0	0.0	0.8
500	2.7	1.7	3.0	0.0	0.7
600	3.1	2.1	4.0	0.1	1.0
700	3.5	2.4	4.5	0.2	1.3

STATION 18

DATE June 25, 1954 LAT. 29°40'N. LONG. 80°00'W. TIME 23
DEPTH 567 WIND 2 , 12 BAR. 16 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 01 CLOUDS: type 4 , amt. 1 SEA: dir. 12 , amt. 1
SWELL: dir. 32 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.78	35.95	22.87	-
7	28.00	35.91	23.10	4.61
15	27.85	36.00	23.22	4.64
38	27.75	36.00	23.25	4.66
77	26.02	36.28	24.01	4.63
113	23.50	36.47	24.92	4.55
152	20.68	36.44	25.70	4.50
231	16.12	36.08	26.57	3.22
311	12.07	35.52	27.00	3.03
392	9.09	35.11	27.21	2.91

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.78	35.95	22.87	-
10	27.94	35.95	23.15	4.62
20	27.83	36.00	23.22	4.64
30	27.78	36.00	23.24	4.64
50	27.33	36.09	23.45	4.63
75	26.13	36.27	23.97	4.63
100	24.42	36.43	24.62	4.58
150	20.82	36.44	25.66	4.51
200	17.84	36.24	26.28	3.59
250	15.06	35.93	26.69	3.17
300	12.56	35.59	26.96	3.05

STATION 18

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.6	1.0	0.0	0.9
7	0.5	0.4	1.0	0.0	1.9
15	2.3	0.4	0.5	2.8	1.9
38	1.3	0.6	1.0	0.6	-
77	1.8	0.3	0.0	0.7	1.3
113	1.7	1.3	<0.5	1.1	1.2
152	1.5	1.5	1.0	2.5	-
231	3.4	2.2	5.0	0.4	1.3
311	2.6	1.7	21.0	-	2.1
392	2.6	2.7	14.5	0.0	1.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.6	1.0	0.0	0.9
10	1.0	0.4	1.0	1.0	1.9
20	2.1	0.5	0.5	2.3	1.9
30	1.6	0.6	1.0	1.4	1.8
50	1.5	0.5	0.5	0.6	1.6
75	1.8	0.3	0.0	0.7	1.3
100	1.7	1.0	<0.5	1.0	1.2
150	1.5	1.5	1.0	2.5	1.3
200	2.7	2.0	3.5	1.2	1.3
250	3.2	2.1	9.0	0.4	1.5
300	2.7	1.8	19.0	0.2	2.0
400	2.6	2.7	14.5	0.0	1.1

STATION 19

DATE June 26, 1954 LAT. 29°40'N. LONG. 80°23'W. TIME 03
DEPTH 40 WIND 7 , 18 BAR. 17 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 01 CLOUDS: type - , amt. - SEA: dir. 17 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.09	36.11	23.55	4.65
10	27.07	36.13	23.57	4.66
20	26.92	36.11	23.60	4.69
30	26.75	36.11	23.65	4.64

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.09	36.11	23.55	4.65
10	27.07	36.13	23.57	4.66
20	26.92	36.11	23.60	4.69
30	26.75	36.11	23.65	4.64

STATION 19

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.5	<0.5	-	1.3
10	3.1	1.6	0.5	0.0	1.5
20	2.5	0.5	0.0	0.0	0.8
30	1.6	0.7	0.5	-	1.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.5	<0.5	-	1.3
10	3.1	1.6	0.5	0.0	1.5
20	2.5	0.5	0.0	0.0	0.8
30	1.6	0.7	0.5	-	1.5

STATION 20

DATE June 26, 1954 LAT. 29°40'N. LONG. 80°45'W. TIME 05
DEPTH 27 WIND 6 , 17 BAR. 17 AIR TEMP: dry 27.2°C, wet 24.4°C
HUMIDITY 79% WEATHER 02 CLOUDS: type - , amt. 2 SEA: dir. 17 , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.01	35.91	23.42	4.51
10	27.01	35.93	23.44	4.51
20	26.74	35.96	23.54	4.55

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.01	35.91	23.42	4.51
10	27.01	35.93	23.44	4.51
20	26.74	35.96	23.54	4.55

STATION 20

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.7	0.6	0.0	0.7	1.5
10	0.8	0.7	0.5	0.7	2.0
20	1.6	-	0.5	-	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.7	0.6	0.0	0.7	1.5
10	0.8	0.7	0.5	0.7	2.0
20	1.6	-	0.5	-	0.8

STATION 21

DATE June 26, 1954 LAT. 29°40' N. LONG. 81°08' W. TIME 08
DEPTH 18 WIND 7 , 21 BAR. 16 AIR TEMP: dry 26.1 °C, wet 25.0 °C
HUMIDITY 91% WEATHER 02 CLOUDS: type - , amt. 2 SEA: dir. 21 , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.56	35.46	22.90	4.58
10	27.52	35.54	22.98	4.60

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.56	35.46	22.90	4.58
10	27.52	35.54	22.98	4.60

STATION 21

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.2	0.5	1.8	1.1
10	3.6	2.0	0.0	1.5	3.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.2	0.5	1.8	1.1
10	3.6	2.0	0.0	1.5	3.3

STATION 22

DATE June 26, 1954 LAT. 30°01'N. LONG. 81°14'W. TIME 11
DEPTH 15 WIND 5 , 23 BAR. 17 AIR TEMP: dry 25.6°C, wet 25.0°C
HUMIDITY 96% WEATHER 01 CLOUDS: type 5 , amt. 1 SEA: dir. 24 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.38	35.52	23.01	4.53
10	27.30	35.53	23.04	4.48

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.38	35.52	23.01	4.53
10	27.30	35.53	23.04	4.48

STATION 22

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.4	1.1	<0.5	1.0	1.3
10	1.6	1.3	<0.5	0.0	2.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.4	1.1	<0.5	1.0	1.3
10	1.6	1.3	<0.5	0.0	2.5

STATION 23

DATE June 26, 1954 LAT. 30°20'N. LONG. 81°20'W. TIME 13
DEPTH 12 WIND 5 , 28 BAR. 18 AIR TEMP: dry 25.0°C, wet 24.4°C
HUMIDITY 96% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 28 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.71	35.11	22.59	4.54
10	27.59	35.21	22.71	4.44

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.71	35.11	22.59	4.54
10	27.59	35.21	22.71	4.44

STATION 23

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.7	0.8	0.0	-	-
10	1.5	1.5	<0.5	0.0	2.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.7	0.8	0.0	-	-
10	1.5	1.5	<0.5	0.0	2.0

STATION 24

DATE June 26, 1954 LAT. 30°20'N. LONG. 80°58'W. TIME 16
DEPTH 29 WIND 4 , 27 BAR. 18 AIR TEMP: dry 30.0°C, wet 27.2°C
HUMIDITY 81% WEATHER 05 CLOUDS: type - , amt. - SEA: dir. 27 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.44	35.52	22.99	-
10	27.09	35.55	23.12	4.73

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.44	35.52	22.99	-
10	27.09	35.55	23.12	4.73

STATION 24

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.8	0.9	<0.5	0.5	0.9
10	1.7	0.5	0.0	0.3	1.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.8	0.9	<0.5	0.5	0.9
10	1.7	0.5	0.0	0.3	1.8

STATION 25

DATE June 26, 1954 LAT. 30°20'N. LONG. 80°36'W. TIME 19
DEPTH 36 WIND 4 , 22 BAR. 17 AIR TEMP: dry 30.0°C, wet 27.2°C
HUMIDITY 81% WEATHER 05 CLOUDS: type - , amt. - SEA: dir. 26 , amt. 1
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.93	36.02	23.21	4.69
10	27.29	36.05	23.44	4.66
20	27.20	36.06	23.47	4.70

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.93	36.02	23.21	4.69
10	27.29	36.05	23.44	4.66
20	27.20	36.06	23.47	4.70

STATION 25

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.4	<0.5	0.7	0.8
10	0.7	0.5	6.0	0.3	2.4
20	0.7	0.4	0.5	0.9	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.4	<0.5	0.7	0.8
10	0.7	0.5	6.0	0.3	2.4
20	0.7	0.4	0.5	0.9	-

STATION 26

DATE June 26, 1954 LAT. 30°20'N. LONG. 80°12'W. TIME 22
DEPTH 131 WIND 3 , 19 BAR. 16 AIR TEMP: dry 30.6°C, wet 27.2°C
HUMIDITY 77% WEATHER 02 CLOUDS: type 5 , amt. 1 SEA: dir. 23 , amt. 1
SWELL: dir. 30 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.38	35.99	23.03	4.64
10	27.78	35.92	23.18	4.65
20	27.46	36.03	23.37	4.65
50	24.80	36.32	24.42	4.84
75	22.82	36.47	25.12	4.23
100	17.16	36.06	26.31	3.58

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.38	35.99	23.03	4.64
10	27.78	35.92	23.18	4.65
20	27.46	36.03	23.37	4.65
30	26.54	36.14	23.74	4.83
50	24.80	36.32	24.42	4.84
75	22.82	36.47	25.12	4.23
100	17.16	36.06	26.31	3.58

STATION 26

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.9	1.5	2.4	0.8
10	1.9	-	3.5	0.4	-
20	1.5	0.4	1.0	0.0	0.9
50	-	1.1	2.0	0.2	1.1
75	1.1	0.3	<0.5	1.1	0.6
100	1.6	0.9	1.0	0.0	1.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.9	1.5	2.4	0.8
10	1.9	0.7	3.5	0.4	0.8
20	1.5	0.4	1.0	0.0	0.9
30	1.4	0.6	1.5	<0.1	0.9
50	1.3	1.1	2.0	0.2	1.1
75	1.1	0.3	<0.5	1.1	0.6
100	1.6	0.9	1.0	0.0	1.4

STATION 27

DATE June 27, 1954 LAT. 30°20'N. LONG. 79°50'W. TIME 01
DEPTH 585 WIND 5 , 23 BAR. 15 AIR TEMP: dry 28.9°C, wet 26.7°C
HUMIDITY 84% WEATHER 02 CLOUDS: type 5 , amt. 1 SEA: dir. 23 , amt. 2
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.24	35.89	23.01	4.47
9	28.05	35.90	23.08	4.48
17	28.06	36.00	23.15	4.51
44	26.96	36.11	23.59	4.57
87	25.53	36.37	24.23	4.51
132	23.79	36.54	24.89	4.42
175	21.84	36.58	25.48	3.89
217	19.07	36.46	26.14	3.36
292	14.71	34.76*	25.87	3.09
368	11.29	35.40	27.05	2.90

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.24	35.89	23.01	4.47
10	28.06	35.91	23.08	4.48
20	27.93	36.01	23.20	4.52
30	27.51	36.05	23.37	4.55
50	26.77	36.15	23.68	4.56
75	25.95	36.31	24.06	4.53
100	25.06	36.43	24.42	4.48
150	23.08	36.58	25.13	4.20
200	20.16	36.52	25.90	3.55
250	17.03	36.29	26.51	3.24
300	14.30	35.92	26.85	3.07

STATION 27

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	1.3	<0.5	0.0	1.2
9	1.3	0.8	1.0	0.0	2.3
17	-	1.0	0.0	0.0	1.9
45	1.4	0.3	0.5	-	2.4
92	-	1.1	-	4.4	1.2
140	1.7	1.0	0.5	0.2	1.3
148	1.0*	1.0	0.5	0.0	1.8
217	1.5	1.5	3.5	0.0	0.7
292	2.0	1.6	7.5	-	-
368	3.5	1.7	1.0	1.7	1.6

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	1.3	<0.5	0.0	1.2
10	1.3	0.8	1.0	0.0	2.3
20	1.4	1.0	0.0	0.0	2.0
30	1.4	0.7	<0.5	-	2.2
50	1.5	0.4	0.5	-	2.3
75	1.5	0.8	0.5	-	1.7
100	1.6	1.1	0.5	4.4	1.2
150	1.7	1.0	0.5	0.0	1.8
200	1.6	1.4	3.0	0.0	1.0
250	1.7	1.5	5.5	0.4	0.9
300	2.0	1.6	7.5	1.0	1.2

STATION 28

DATE June 27, 1954 LAT. 30°21'N. LONG. 79°26'W. TIME 05
DEPTH 750 WIND 7 , 23 BAR. 15 AIR TEMP: dry 28.3°C, wet 26.7°C
HUMIDITY 88% WEATHER 02 CLOUDS: type - , amt. 1 SEA: dir. 23 , amt. 3
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.39	36.01	23.05	4.52
8	28.45	36.09	23.09	4.52
15	28.25	36.09	23.15	4.56
40	27.68	36.06	23.32	4.65
80	25.33	36.30	24.24	-
120	23.54	36.61	25.02	4.75
160	21.61	34.90*	24.27	4.50
245	19.51	34.90*	24.83	4.18
330	17.53	34.90*	25.33	3.66
498	14.10	35.83	26.82	3.22
583	12.63	35.58	26.93	3.15

*Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.39	36.01	23.05	4.52
10	28.39	36.09	23.11	4.53
20	28.19	36.07	23.16	4.58
30	27.99	36.06	23.22	4.62
50	27.04	36.11	23.56	4.67
75	25.59	36.27	24.14	4.71
100	24.45	36.46	24.63	4.74
150	22.04	36.57	25.42	4.56
200	20.61	36.49	25.75	4.26
250	19.39	36.40	26.01	4.00
300	18.21	36.31	26.24	3.77
400	16.02	36.08	26.59	3.43
500	14.06	35.82	26.83	3.22

STATION 28

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.5	<0.5	0.0	1.2
8	0.9	-	<0.5	0.0	-
15	0.7	0.3	<0.5	12.2	2.8
40	2.5	0.5	0.5	2.6	1.4
80	2.3	-	0.5	0.4	1.4
120	0.7	0.2	1.0	1.5	1.7
160	2.1	0.4	<0.5	0.0	2.8
245	0.8	0.9	0.5	1.5	1.4
330	1.7	0.8	4.5	0.7	0.6
498	1.4	1.5	9.5	3.8	2.1
583	2.7	1.6	19.0	0.6	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.5	<0.5	0.0	1.2
10	0.8	0.4	<0.5	0.0	2.3
20	1.0	0.4	0.5	12.2	2.5
30	1.8	0.4	0.5	-	2.0
50	2.5	0.5	0.5	2.0	1.4
75	2.4	0.4	0.5	0.7	1.4
100	1.5	0.3	1.0	1.0	1.6
150	1.8	0.4	0.5	0.4	2.5
200	1.5	0.6	0.5	0.8	2.2
250	0.9	0.9	0.5	1.5	1.4
300	1.4	0.9	3.0	1.0	0.9
400	1.6	1.1	6.5	2.0	1.3
500	1.4	1.5	9.5	3.8	2.1

STATION 29

DATE June 27, 1954 LAT. 30°58'N. LONG. 79°14'W. TIME 10
DEPTH 750 WIND 9 , 26 BAR. 14 AIR TEMP: dry 27.8°C, wet 26.7°C
HUMIDITY 92% WEATHER 02 CLOUDS: type -, amt. - SEA: dir. 26, amt. 3
SWELL: dir. -, amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.86	35.78	23.05	4.62
7	27.91	35.77	23.02	4.56
13	27.87	35.77	23.04	4.62
34	27.64	35.77	23.11	4.64
70	26.57	36.13	23.73	4.65
73	26.12	36.16	23.89	4.54
84	24.74	36.48	24.56	4.23
129	21.62	36.68	25.62	4.15
175	20.23	36.69	26.01	4.38
269	18.21	36.51	26.39	4.23
315	16.91	36.15	26.44	3.60

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.86	35.78	23.05	4.62
10	27.89	35.77	23.03	4.59
20	27.83	35.77	23.05	4.63
30	27.71	35.77	23.09	4.64
50	27.16	35.93	23.39	4.64
75	25.85	36.23	24.03	4.48
100	23.43	36.57	25.02	4.17
150	20.95	36.69	25.81	4.28
200	19.78	36.64	26.09	4.34
250	18.69	36.61	26.35	4.26
300	17.36	36.29	26.43	3.85

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STATION 29

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.1	1.0	2.4	1.3
7	0.9	0.5	0.5	0.0	1.2
13	3.8	0.7	0.5	0.1	1.0
34	0.9	0.4	1.5	0.0	1.1
70	1.5	0.4	0.5	-	1.3
73	3.7	0.5	0.5	0.0	3.1
84	1.6	0.4	2.0	0.9	1.1
129	2.1	0.4	0.5	0.0	2.3
175	2.0	0.3	2.5	0.0	2.7
269	2.6	0.6	0.5	1.4	1.4
315	2.3	2.1	6.5	6.3	1.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.1	1.0	2.4	1.3
10	2.4	0.6	0.5	0.1	1.1
20	2.8	0.6	1.0	0.1	1.0
30	1.5	0.5	1.5	0.0	1.1
50	1.2	0.4	1.0	0.0	1.2
75	3.3	0.5	1.0	0.1	2.7
100	1.8	0.4	1.5	0.6	1.5
150	2.1	0.4	1.5	0.0	2.5
200	2.2	0.4	2.0	0.4	2.4
250	2.5	0.5	1.0	1.2	1.6
300	2.4	1.7	4.5	4.7	1.6

STATION 30

DATE June 27, 1954 LAT. 30°58'N. LONG. 79°38'W. TIME 16
DEPTH 539 WIND 8 , 24 BAR. 15 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 88% WEATHER 05 CLOUDS: type 2 , amt. 2 SEA: dir. 26 , amt. 3
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.65	36.10	23.03	4.55
8	28.68	36.07	23.00	4.64
15	28.48	36.06	23.05	4.62
36	26.94	36.03	23.53	4.66
70	25.11	36.44	24.42	4.65
108	22.94	36.43	25.05	4.80
142	21.21	36.35	25.48	4.42
216	17.55	36.35	26.43	3.44
291	14.16	36.13	27.04	3.06
368	11.00	35.29*	27.02	2.90

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.65	36.10	23.03	4.55
10	28.64	36.07	23.01	4.63
20	28.08	36.03	23.16	4.63
30	27.35	36.04	23.41	4.65
50	26.20	36.25	23.93	4.66
75	24.81	36.44	24.51	4.70
100	23.38	36.44	24.93	4.77
150	20.80	36.35	25.59	4.29
200	18.31	36.35	26.25	3.60
250	15.97	36.32	26.79	3.19
300	13.77	-	-	-

STATION 30

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.7	0.6	0.0	1.1	0.4
8	1.5	1.2	<0.5	2.8	0.8
15	1.7	0.3	<0.5	0.0	-
36	1.4	0.6	<0.5	0.1	1.6
70	1.4	0.4	0.5	0.2	1.5
108	1.3	0.6	0.5	-	-
142	3.7	0.4	-	5.1	1.6
221	2.0	1.0	3.0	0.8	0.8
291	2.5	1.6	10.0	0.8	0.2
368	2.6	2.6	2.0	-	1.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.7	0.6	0.0	1.1	0.4
10	1.6	1.0	<0.5	2.0	0.9
20	1.7	0.4	<0.5	0.0	1.2
30	1.5	0.5	<0.5	0.1	1.5
50	1.4	0.5	<0.5	0.2	1.6
75	1.4	0.5	0.5	0.5	1.5
100	1.3	0.6	0.5	2.3	1.5
150	3.5	0.5	1.5	4.7	1.5
200	2.5	0.8	2.5	2.0	1.0
250	2.2	1.3	6.0	0.8	0.6
300	2.5	1.6	10.0	0.8	0.2

STATION 31

DATE June 27, 1954 LAT. 31°00'N. LONG. 80°00'W. TIME 20
DEPTH 56 WIND 5 , 26 BAR. 13 AIR TEMP: dry 28.9°C, wet 27.2°C
HUMIDITY 88% WEATHER 05 CLOUDS: type 2 , amt. 1 SEA: dir. 26 , amt. 3
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.94	36.04	23.22	4.57
10	27.74	35.97	23.23	4.61
20	27.42	36.02	23.37	4.61
50	22.84	36.18	24.89	4.40

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.94	36.04	23.22	4.57
10	27.74	35.97	23.23	4.61
20	27.42	36.02	23.37	4.61
30	26.50	36.07	23.70	4.57
50	22.84	36.18	24.89	4.40

STATION 31

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.3	0.5	0.0	0.6
10	2.6	1.0	1.0	-	1.3
20	-	0.7	0.5	0.0	0.5
50	0.8	0.4	0.0	0.2	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.3	0.5	0.0	0.6
10	2.6	1.0	1.0	0.0	1.3
20	2.2	0.7	0.5	0.0	0.5
30	1.8	0.6	<0.5	<0.1	0.8
50	0.8	0.4	0.0	0.2	1.3

STATION 32

DATE June 27, 1954 LAT. 31°00' N. LONG. 80°23' W. TIME 23
DEPTH 42 WIND 5 , 19 BAR. 12 AIR TEMP: dry 27.8 °C, wet 27.2 °C
HUMIDITY 96 % WEATHER 05 CLOUDS: type - , amt. - SEA: dir. 22 , amt. 2
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.52	35.79	23.17	4.50
10	26.73	35.68	23.34	4.74
20	25.56	35.93	23.89	4.81
30	25.45	36.04	24.01	4.73

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.52	35.79	23.17	4.50
10	26.73	35.68	23.34	4.74
20	25.56	35.93	23.89	4.81
30	25.45	36.04	24.01	4.73

STATION 32

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.2	0.4	<0.5	2.0	1.4
10	1.2	-	0.5	0.0	0.6
20	1.4	0.3	0.5	0.6	0.7
30	1.5	0.3	0.5	2.7	1.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.2	0.4	<0.5	2.0	1.4
10	1.2	0.4	0.5	0.0	0.6
20	1.4	0.3	0.5	0.6	0.7
30	1.5	0.3	0.5	2.7	1.6

STATION 33

DATE June 28, 1954 LAT. 31°00'N. LONG. 80°46'W. TIME 02
DEPTH 21 WIND 8 , 16 BAR. 13 AIR TEMP: dry 28.3°C, wet 27.2°C
HUMIDITY 92% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 16 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.61	35.02	22.56	4.65
10	26.79	35.10	22.88	4.76

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.61	35.02	22.56	4.65
10	26.79	35.10	22.88	4.76

STATION 33

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	3.7	1.1	1.5	0.3	1.6
10	1.6	0.6	0.5	0.0	1.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	3.7	1.1	1.5	0.3	1.6
10	1.6	0.6	0.5	0.0	1.9

STATION 34

DATE June 28, 1954 LAT. 31°00'N. LONG. 81°08'W. TIME 05
DEPTH 12 WIND 11 , 22 BAR. 13 AIR TEMP: dry 29.4°C, wet 27.2°C
HUMIDITY 84% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 25 , amt. 2
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.82	34.78	22.31	4.66
10	27.82	34.78	22.31	4.71

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.82	34.78	22.31	4.66
10	27.82	34.78	22.31	4.71

STATION 34

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.6	1.5	0.0	0.5	1.1
10	1.4	0.6	1.0	-	3.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.6	1.5	0.0	0.5	1.1
10	1.4	0.6	1.0	-	3.2

STATION 35

DATE July 2, 1954 LAT. 31°21'N. LONG. 80°53'W. TIME 06
DEPTH 15 WIND 3 , 20 BAR. 21 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 01 CLOUDS: type -, amt. - SEA: dir. -, amt. -
SWELL: dir. 20, amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.03	34.52	22.05	4.76
10	27.99	34.61	22.13	4.52

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.03	34.52	22.05	4.76
10	27.99	34.61	22.13	4.52

STATION 35

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.4	0.6	0.5	-	1.1
10	1.1	0.6	<0.5	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.4	0.6	0.5	-	1.1
10	1.1	0.6	<0.5	-	0.3

STATION 36

DATE July 2, 1954 LAT. 31°42'N. LONG. 80°36'W. TIME 09
DEPTH 18 WIND 3 , 20 BAR. 21 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 88% WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. - , amt. -
SWELL: dir. 20 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.58	34.20	21.95	4.73
10	27.61	34.42	22.11	4.74

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.58	34.20	21.95	4.73
10	27.61	34.42	22.11	4.74

STATION 36

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.5	0.2	0.0	-	1.1
10	0.9	0.2	0.0	0.2	0.?

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.5	0.2	0.0	-	1.1
10	0.9	0.2	0.0	0.2	0.3

STATION 37

DATE July 2, 1954 LAT. 31°38'N. LONG. 80°15'W. TIME 12
DEPTH 31 WIND 0 , 00 BAR. 22 AIR TEMP: dry 29.4°C, wet 26.7°C
HUMIDITY 79% WEATHER - CLOUDS: type 4 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. 18 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.41	35.40	22.91	4.74
10	26.68	35.57	23.27	4.72
20	26.47	35.73	23.46	4.71

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.41	35.40	22.91	4.74
10	26.68	35.57	23.27	4.72
20	26.47	35.73	23.46	4.71

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STATION 37

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.3	0.0	-	-
10	3.6	0.6	0.0	-	0.1
20	0.8	0.4	<0.5	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.3	0.0	-	-
10	3.6	0.6	0.0	-	0.1
20	0.8	0.4	<0.5	-	1.0

STATION 38

DATE July 2, 1954 LAT. 31°36'N. LONG. 79°52'W. TIME 15
DEPTH 49 WIND 0 , 00 BAR. 23 AIR TEMP: dry 30.0°C, wet 27.2°C
HUMIDITY 81% WEATHER 02 CLOUDS: type 8 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. 18 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.52	36.17	23.45	4.57
10	27.37	36.08	23.43	4.71
20	26.89	36.08	23.59	4.62
30	25.71	36.18	24.03	4.65

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.52	36.17	23.45	4.57
10	27.37	36.08	23.43	4.71
20	26.89	36.08	23.59	4.62
30	25.71	36.18	24.03	4.65

STATION 38

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.5	0.0	-	0.2
10	0.9	0.5	<0.5	-	1.1
20	1.3	0.3	0.0	0.0	0.8
30	1.2	0.1	0.0	0.3	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.5	0.0	-	0.2
10	0.9	0.5	<0.5	-	1.1
20	1.3	0.3	0.0	0.0	0.8
30	1.2	0.1	0.0	0.3	0.6

STATION 39

DATE July 2, 1954 LAT. 31°32'N. LONG. 79°28'W. TIME 18
DEPTH 493 WIND 0 , 00 BAR. 23 AIR TEMP: dry 29.4°C, wet 26.1°C
HUMIDITY 76% WEATHER 03 CLOUDS: type 8 , amt. 2 SEA: dir. - , amt. 1
SWELL: dir. 06 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.79	35.78	22.74	4.49
8	28.10	35.78	22.97	4.49
17	27.85	35.84	23.10	4.57
43	26.26	36.49	24.10	4.71
85	22.01	36.40	25.30	4.40
128	17.94	35.91	26.00	3.32
171	15.82	35.97	26.55	3.07
258	12.13	35.50	26.97	2.94
346	9.61	35.10	27.12	2.92

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.79	35.78	22.74	4.49
10	28.06	35.79	22.99	4.51
20	27.71	35.94	23.22	4.60
30	27.15	36.23	23.62	4.67
50	25.53	36.48	24.32	4.66
75	23.00	36.46	25.06	4.54
100	20.37	36.17	25.57	3.93
150	16.83	35.96	26.31	3.18
200	14.46	35.81	26.73	3.01
250	12.42	35.54	26.94	2.95
300	10.78	35.30	27.07	2.93

STATION 39

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.2	<0.5	-	1.3
8	0.9	1.0	0.5	-	1.2
17	1.6	0.3	0.5	0.9	1.5
41	1.5	-	0.0	0.0	0.3
85	0.8	0.4	1.0	-	0.0
128	1.7	1.1	<0.5	-	0.6
171	2.1	1.6	3.0	1.5	3.7
258	2.3	1.0	10.0	3.8	0.9
346	2.5	1.6	3.5	1.5	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	0.2	<0.5	-	1.3
10	1.1	0.8	0.5	-	1.3
20	1.6	0.3	0.5	0.8	1.3
30	1.5	0.3	<0.5	0.4	0.8
50	1.4	0.4	<0.5	-	0.3
75	1.0	0.4	1.0	-	0.1
100	1.1	0.7	1.0	-	0.2
150	1.9	1.4	1.5	-	2.2
200	2.2	1.4	5.5	2.3	2.8
250	2.3	1.1	9.5	3.6	1.2
300	2.4	1.3	7.0	2.7	0.9

STATION 40

DATE July 2, 1954 LAT. 31°28'N. LONG. 78°43'W. TIME 22
DEPTH 585 WIND 3 , 08 BAR. 21 AIR TEMP: dry 29.4°C, wet 25.0°C
HUMIDITY 69% WEATHER 03 CLOUDS: type 4 , amt. 1 SEA: dir. - , amt. -
SWELL: dir. 06 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	29.64	35.93	22.57	-
8	28.28	35.88	22.99	4.65
16	28.24	35.90	23.01	4.67
40	27.58	36.02	23.32	4.76
82	25.28	36.13	24.13	4.69
123	22.36	36.56	25.32	4.81
165	21.44	36.66	25.65	4.06
250	17.91	36.44	26.41	4.42
337	16.19	36.13	26.59	3.84
424	14.25	35.77	26.75	3.74

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	29.64	35.93	22.57	-
10	28.28	35.88	22.99	4.66
20	28.16	35.92	23.05	4.69
30	27.91	35.98	23.18	4.73
50	27.10	36.02	23.47	4.73
75	25.71	36.09	23.97	4.70
100	23.75	36.36	24.76	4.74
150	21.83	36.64	25.53	4.26
200	19.77	36.58	26.05	4.32
250	17.91	36.44	26.41	4.42
300	16.95	36.27	26.52	4.03
400	14.81	35.87	26.70	3.77

STATION 40

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.7	0.0	-	1.2
8	1.0	0.5	<0.5	-	-
16	0.9	0.3	<0.5	2.2	0.5
40	1.5	0.5	1.0	-	0.8
82	1.2	0.5	0.0	-	1.6
123	0.5	0.4	0.5	0.0	1.2
165	1.2	0.4	2.5	-	0.6
250	1.8	1.1	2.5	0.1	1.9
337	2.0	1.2	1.0	0.0	1.2
424	1.5	1.3	0.5	-	1.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.7	0.0	-	1.2
10	1.0	0.5	<0.5	-	0.8
20	1.0	0.3	0.5	2.2	0.5
30	1.3	0.4	0.5	-	0.7
50	1.5	0.5	1.0	-	1.0
75	1.3	0.5	<0.5	-	1.5
100	0.9	0.5	<0.5	-	1.4
150	1.0	0.4	2.0	0.0	0.8
200	1.5	0.7	2.5	0.1	1.2
250	1.8	1.1	2.5	0.1	1.9
300	1.9	1.2	1.5	0.0	1.5
400	1.6	1.3	0.5	-	1.5

STATION 41

DATE July 3, 1954 LAT. 31°43'N. LONG. 79°00'W. TIME 04
DEPTH 561 WIND 3 , 12 BAR. 22 AIR TEMP: dry 28.3°C, wet 25.6°C
HUMIDITY 80% WEATHER 02 CLOUDS: type - , amt. 0 SEA: dir. - , amt. -
SWELL: dir. 06 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.94	35.96	22.83	4.55
9	28.51	35.87	22.90	4.57
17	28.36	35.91	22.98	4.61
41	26.20	36.20	23.90	4.57
80	23.08	36.20	24.84	4.71
114	18.96	36.26	26.01	3.69
146	15.74	35.97	26.57	3.17
207	12.61	35.59	26.95	2.94
273	11.50*	35.34	26.97	2.91
343	9.50	35.10	27.13	3.00

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.94	35.96	22.83	4.55
10	28.50	35.87	22.90	4.58
20	28.15	35.96	23.06	4.60
30	27.22	36.11	23.44	4.58
50	25.47	36.20	24.01	4.60
75	23.52	36.20	24.52	4.69
100	20.56	36.23	25.19	4.05
150	15.45	35.94	26.17	3.15
200	12.84	35.62	26.90	2.96
250	11.40	35.42	26.94	2.92
300	10.30	35.24	27.02	2.93

STATION 41

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.5	0.5	1.7	1.6
9	1.0	0.4	0.0	1.6	1.3
18	0.8	0.2	-	-	0.2
44	1.2	-	0.0	0.0	0.7
89	1.0	-	0.5	-	<0.1
134	2.0	0.8	0.5	-	1.5
179	2.1	-	4.5	-	1.0
204	1.3	1.4	3.5	0.5	-
273	1.6	1.5	9.0	-	1.0
343	2.6	2.2	24.0	-	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.5	0.5	1.7	1.6
10	1.0	0.4	0.0	1.6	1.3
20	0.9	0.2	0.0	1.2	0.2
30	1.0	0.3	0.0	0.8	0.4
50	1.2	0.4	<0.5	0.0	0.6
75	1.1	0.5	0.5	-	0.3
100	1.3	0.6	0.5	-	0.5
150	2.1	1.0	2.0	-	1.3
200	1.3	1.4	3.5	0.5	1.0
250	1.5	1.5	7.0	-	1.0
300	2.0	1.8	15.0	-	0.8

STATION 42

DATE July 3, 1954 LAT. 31°58'N. LONG. 79°16'W. TIME 08
DEPTH 128 WIND 3 , 26 BAR. 20 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 02 CLOUDS: type - , amt. - SEA: dir. 26 , amt. 1
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.46	36.02	23.36	4.64
10	27.47	36.04	23.37	4.57
20	26.43	36.04	23.70	4.66
50	18.69	36.47	26.24	3.32
100	15.08	35.94	26.70	3.09

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.46	36.02	23.36	4.64
10	27.47	36.04	23.37	4.57
20	26.43	36.04	23.70	4.66
30	23.39	36.25	24.79	4.11
50	18.69	36.47	26.24	3.32
75	17.20	36.40	26.56	3.20
100	15.08	35.94	26.70	3.09

STATION 42

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.7	0.7	<0.5	-	0.4
10	-	0.7	0.0	-	0.5
20	-	-	0.0	-	1.2
50	-	1.1	6.5	1.4	0.7
100	2.0	1.9	16.0	-	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.7	1.0	<0.5	-	0.4
10	-	0.7	0.0	-	0.5
20	-	0.8	0.0	-	1.2
30	-	0.9	2.0	-	1.0
50	-	1.1	6.5	1.4	0.7
75	-	1.5	11.0	-	0.3
100	2.0	1.9	16.0	-	0.0

STATION 43

DATE July 3, 1954 LAT. 32°12'N. LONG. 79°33'W. TIME 12
DEPTH 31 WIND 3 , 20 BAR. 21 AIR TEMP: dry 27.2°C, wet 26.1°C
HUMIDITY 87% WEATHER 03 CLOUDS: type 8 , amt. 2 SEA: dir. 20 , amt. 1
SWELL: dir. 17 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.51	36.10	23.40	4.32
10	27.50	36.11	23.41	4.48
20	26.98	36.13	23.60	4.57

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.51	36.10	23.40	4.32
10	27.50	36.11	23.41	4.48
20	26.98	36.13	23.60	4.57

STATION 43

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.4	0.5	-	0.0
10	1.0	0.2	0.0	-	0.9
20	1.2	0.4	0.5	-	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.4	0.5	-	0.0
10	1.0	0.2	0.0	-	0.9
20	1.2	0.4	0.5	-	0.9

STATION 44

DATE July 3, 1954 LAT. 32°26'N. LONG. 79°48'W. TIME 14
DEPTH 18 WIND 3 , 22 BAR. 21 AIR TEMP: dry 27.8°C, wet 26.1°C
HUMIDITY 84% WEATHER 01 CLOUDS: type - , amt. 0 SEA: dir. - , amt. 0
SWELL: dir. 17 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.69	35.64	23.00	4.77
10	27.21	35.39	22.97	4.85

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.69	35.64	23.00	4.77
10	27.21	35.39	22.97	4.85

STATION 44

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	1.1	0.0	-	0.6
10	1.3	0.6	0.0	-	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	1.1	0.0	-	0.6
10	1.3	0.6	0.0	-	0.3

STATION 45

DATE July 3, 1954 LAT. 32°40'N. LONG. 79°32'W. TIME 16
DEPTH 14 WIND 5 , 24 BAR. 21 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 8 , amt. 2 SEA: dir. 24 , amt. 1
SWELL: dir. 11 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.78	34.20	21.89	4.68
10	27.37	35.17	22.75	4.71

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.78	34.20	21.89	4.68
10	27.37	35.17	22.75	4.71

STATION 45

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.3	0.2	0.0	-	0.7
10	2.2	0.9	<0.5	-	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.3	0.2	0.0	-	0.7
10	2.2	0.9	<0.5	-	-

STATION 46

DATE July 3, 1954 LAT. 32°54'N. LONG. 79°16'W. TIME 19
DEPTH 11 WIND 5 , 22 BAR. 20 AIR TEMP: dry 31.7°C, wet 27.8°C
HUMIDITY 74% WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. 21 , amt. 1
SWELL: dir. 19 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.56	-	-	4.79

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.56	-	-	4.79

STATION 46

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.6	1.5	-	1.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.6	1.5	-	1.0

STATION 47

DATE July 3, 1954 LAT. 32°40'N. LONG. 79°00'W. TIME 22
DEPTH 25 WIND 6 , 18 BAR. 19 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 01 CLOUDS: type 8 , amt. 2 SEA: dir. 22 , amt. 2
SWELL: dir. 19 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.94	-	-	4.72
10	27.37	36.03	23.40	4.80
20	26.87	35.90	23.46	4.80

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.94	-	-	4.72
10	27.37	36.03	23.40	4.80
20	26.87	35.90	23.46	4.80

STATION 47

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.5	1.0	-	1.3
10	2.2	0.6	0.0	-	1.0
20	1.6	0.5	1.5	0.5	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.5	1.0	-	1.3
10	2.2	0.6	0.0	-	1.0
20	1.6	0.5	1.5	0.5	0.9

STATION 48

DATE July 4, 1954 LAT. 32°26'N. LONG. 78°43'W. TIME 01
DEPTH 237 WIND 4 , 18 BAR. 19 AIR TEMP: dry 28.3°C, wet 26.1°C
HUMIDITY 84% WEATHER 02 CLOUDS: type 8 , amt. 2 SEA: dir. 22 , amt. 2
SWELL: dir. 19 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.63	36.58	23.72	4.70
10	27.25	36.08	23.47	4.72
20	26.89	36.16	23.65	4.77
50	22.44	36.44	25.21	4.59
100	16.35	35.86	26.35	3.36
150	14.27	35.71	26.70	3.43
200	12.86	35.62	26.92	3.25

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.63	36.58	23.72	4.70
10	27.25	36.08	23.47	4.72
20	26.89	36.16	23.65	4.77
30	25.34	36.31	24.25	4.76
50	22.44	36.44	25.21	4.59
75	18.89	36.10	25.91	3.81
100	16.35	35.86	26.35	3.36
150	14.27	35.71	26.70	3.43
200	12.86	35.62	26.92	3.25

STATION 48

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.8	0.6	0.5	-	1.4
10	0.8	-	0.0	2.4	1.1
20	1.3	0.5	<0.5	-	1.1
50	1.2	0.6	0.0	0.0	1.7
100	-	2.0	-	0.2	0.6
150	2.4	2.0	14.5	2.6	0.0
200	-	2.2	5.5	0.0	0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.8	0.6	0.5	-	1.4
10	0.8	0.6	0.0	2.4	1.1
20	1.3	0.5	<0.5	1.8	1.1
30	1.3	0.5	<0.5	1.2	1.3
50	1.2	0.6	0.0	0.0	1.7
75	1.6	1.3	-	0.1	1.2
100	1.8	2.0	-	0.2	0.6
150	2.4	2.0	14.5	2.6	0.0
200	-	2.2	5.5	0.0	0.1

STATION 49

DATE July 4, 1954 LAT. 32°10'N. LONG. 78°28'W. TIME 04
DEPTH 365 WIND 4 , 21 BAR. 20 AIR TEMP: dry 28.3°C, wet 25.6°C
HUMIDITY 84% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 21 , amt. -
SWELL: dir. 19 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.77	36.14	23.35	4.71
10	27.65	36.22	23.45	4.73
20	27.27	36.44	23.74	4.79
50	22.90	36.08	24.80	4.62
100	17.59	-	-	3.53
150	15.56	36.08	26.70	3.95
200	13.58	35.75	26.87	3.36
300	10.34	35.32	27.16	3.17

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.77	36.14	23.35	4.71
10	27.65	36.22	23.45	4.73
20	27.27	36.44	23.74	4.79
30	25.71	36.30	24.13	4.77
50	22.90	36.08	24.80	4.62
75	19.84	36.08	25.65	3.89
100	17.59	36.08	26.22	3.53
150	15.56	36.08	26.70	3.95
200	13.58	35.75	26.87	3.36
250	11.84	35.50	27.03	3.26
300	10.34	35.32	27.16	3.17

STATION 49

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.5	1.0	0.0	0.9
10	0.8	0.4	0.0	1.9	1.0
20	1.0	-	<0.5	0.7	0.7
50	0.5	0.4	0.0	1.7	1.2
100	-	1.1	0.5	0.0	0.7
150	-	1.7	7.5	3.0	1.7
200	2.5	1.7	0.5*	0.0	-
300	-	2.0	18.0	0.2	0.2

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.5	1.0	0.0	0.9
10	0.8	0.4	0.0	1.9	1.0
20	1.0	0.4	<0.5	0.7	0.7
30	0.8	0.4	<0.5	1.0	0.9
50	0.5	0.4	0.0	1.7	1.2
75	0.9	0.8	<0.5	0.8	1.0
100	1.2	1.1	0.5	0.0	0.7
150	1.9	1.7	7.5	3.0	1.7
200	2.5	1.7	11.0	0.0	-
250	-	1.8	14.5	0.1	-
300	-	2.0	18.0	0.2	0.2

STATION 50

DATE July 4, 1954 LAT. 31°56'N. LONG. 78°08'W. TIME 08
DEPTH 677 WIND 6 , 17 BAR. 20 AIR TEMP: dry 27.8°C, wet 25.0°C
HUMIDITY 80% WEATHER 00 CLOUDS: type - , amt. 2 SEA: dir. 20 , amt. 2
SWELL: dir. 18 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.63	36.10	23.03	-
5	28.64	36.13	23.05	-
10	28.58	36.06	23.02	-
25	27.22	35.92	23.36	-
55	25.85	36.00	23.86	-
85	25.04	36.35	24.37	-
115	18.30	36.20	26.13	-
170	15.44	35.96	26.63	-
230	13.35	35.71	26.89	-
285	11.42	35.50	27.11	-
345	9.58	35.20	27.20	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.63	36.10	23.03	-
10	28.58	36.06	23.02	-
20	27.62	35.95	23.25	-
30	26.95	35.93	23.46	-
50	26.04	35.97	23.77	-
75	25.31	36.29	24.24	-
100	21.21	36.27	25.42	-
150	16.38	36.05	26.48	-
200	14.40	35.83	26.76	-
250	12.62	35.64	26.98	-
300	10.93	35.43	27.14	-

STATION 50

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	3.4	0.2	0.5	1.1	2.0
5	0.5	0.5	1.0	0.1	1.8
10	1.7	0.8	<0.5	0.3	1.4
25	1.1	0.5	0.5	2.1	0.9
55	2.3	0.3	<0.5	1.3	1.5
85	0.9	0.9	2.5	2.4	0.9
115	1.7	0.7	8.5	-	1.5
170	2.4	2.1	3.5	-	1.0
230	2.3	1.7	3.5	-	4.2
285	-	1.9	13.0	0.0	-
345	-	1.5	2.5	2.7	3.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	3.4	0.2	0.5	1.1	2.0
10	1.7	0.8	<0.5	0.3	1.4
20	1.3	0.6	0.5	1.5	1.0
30	1.3	0.5	0.5	2.0	1.0
50	2.1	0.3	<0.5	1.4	1.4
75	1.4	0.7	2.0	2.0	1.1
100	1.4	0.8	5.5	-	1.2
150	2.1	1.6	5.5	-	1.2
200	2.4	2.0	3.5	-	2.6
250	2.3	1.8	7.0	-	4.0
300	-	1.8	10.5	0.7	3.5

STATION 51

DATE July 4, 1954 LAT. 32°20'N. LONG. 77°33'W. TIME 13
DEPTH 594 WIND 8 , 24 BAR. 19 AIR TEMP: dry 28.3°C, wet 25.6°C
HUMIDITY 80% WEATHER 03 CLOUDS: type 2 , amt. 3 SEA: dir. 24 , amt. 3
SWELL: dir. 18 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.42	36.06	23.40	4.68
9	27.46	36.04	23.37	4.76
15	27.42	36.04	23.39	4.76
39	22.95	36.23	24.90	5.15
79	17.87	36.11	26.17	3.85
119	14.36	35.82	26.76	3.15
160	12.71	35.60	26.93	3.12
242	10.27	35.25	27.12	3.10
326	8.97	35.11	27.23	3.12
416	7.38	35.01	27.39	3.83*

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.42	36.06	23.40	4.68
10	27.45	36.04	23.38	4.76
20	26.40	36.10	23.76	4.91
30	24.50	36.18	24.40	5.11
50	21.40	36.21	25.32	4.73
75	18.31	36.13	26.08	3.95
100	15.79	35.95	26.54	3.40
150	13.09	35.65	26.90	3.13
200	11.38	35.40	27.04	3.11
250	10.15	35.23	27.12	3.10
300	9.39	35.15	27.19	3.11
400	7.68	35.02	27.36	-

STATION 51

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.3	<0.5	0.3	0.5
9	1.3	0.2	<0.5	0.0	0.9
15	0.8	0.3	0.0	0.0	1.0
39	1.6	0.5	0.5	2.0	1.3
79	0.7	0.7	0.5	-	1.6
119	2.2	2.1	19.0*	0.3	1.7
160	3.0	1.5	6.5	-	6.3
242	2.5	2.0	5.5	-	0.2
326	2.4	2.0	14.0	1.9	1.2
416	1.9	1.6	4.5	1.4	0.5

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.3	<0.5	0.3	0.5
10	1.3	0.2	<0.5	0.0	0.9
20	1.0	0.4	<0.5	0.4	1.1
30	1.3	0.5	0.5	1.3	1.2
50	1.4	0.6	0.5	1.8	1.4
75	0.8	0.7	0.5	1.2	1.6
100	1.5	1.5	1.5	0.7	1.7
150	2.8	1.7	3.5	-	5.2
200	2.8	1.8	6.0	-	3.4
250	2.5	2.0	6.5	-	0.3
300	2.5	2.0	11.5	-	0.9
400	2.0	1.7	6.0	1.5	0.6

STATION 52

DATE July 4, 1954 LAT. 32°35'N. LONG. 77°47'W. TIME 16
DEPTH 342 WIND 8 , 22 BAR. 18 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 01 CLOUDS: type 8 , amt. 2 SEA: dir. 24 , amt. 3
SWELL: dir. 18 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.54	36.19	23.46	4.69
10	27.51	36.03	23.35	4.85
20	26.30	36.05	23.75	4.82
50	19.32	36.16	25.84	4.11
100	16.30	36.06	26.51	3.32
150	14.36	35.80	26.75	3.56
200	12.19	35.59	27.03	3.06
300	8.81	35.16	27.29	3.04

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.54	36.19	23.46	4.69
10	27.51	36.03	23.35	4.85
20	26.30	36.05	23.75	4.82
30	23.54	36.10	24.63	4.56
50	19.32	36.16	25.84	4.11
75	17.68	36.13	26.23	3.59
100	16.30	36.06	26.51	3.32
150	14.36	35.80	26.75	3.56
200	12.19	35.59	27.03	3.06
250	10.34	35.38	27.21	3.05
300	8.81	35.16	27.29	3.04

STATION 52

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.8	0.6	0.5	3.3	0.0
10	-	0.5	<0.5	1.5	0.9
20	-	1.3	0.5	-	1.3
50	1.4	0.7	1.5	-	0.5
100	2.0	1.4	3.5	-	0.1
150	2.0	1.3	13.5	2.2	1.1
200	2.9	1.6	18.5	1.8	0.1
300	2.2	2.3	28.5	0.3	4.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.8	0.6	0.5	3.3	0.0
10	-	0.5	<0.5	1.5	0.9
20	-	1.3	0.5	-	1.3
30	-	1.1	1.0	-	1.0
50	1.4	0.7	1.5	-	0.5
75	1.7	1.0	2.5	-	0.3
100	2.0	1.4	3.5	-	0.1
150	2.0	1.3	13.5	2.2	1.1
200	2.9	1.6	18.5	1.8	0.1
250	2.6	2.0	23.5	1.1	2.2
300	2.2	2.3	28.5	0.3	4.2

STATION 53

DATE July 4, 1954 LAT. 32°49'N. LONG. 78°04'W. TIME 20
DEPTH 173 WIND 8 , 24 BAR. 17 AIR TEMP: dry 28.9°C, wet 26.7°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 8 , amt. 4 SEA: dir. 24 , amt. 3
SWELL: dir. 18 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.71	36.44	23.59	4.71
10	27.27	36.02	23.42	4.79
20	26.27	36.14	23.83	4.88
50	21.90	36.38	25.31	4.60
100	17.65	36.17	26.27	3.49
150	15.40	35.95	26.63	3.59

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.71	36.44	23.59	4.71
10	27.27	36.02	23.42	4.79
20	26.27	36.14	23.83	4.88
30	24.66	36.24	24.40	4.82
50	21.90	36.38	25.31	4.60
75	19.53	36.28	25.88	3.89
100	17.65	36.17	26.27	3.49
150	15.40	35.95	26.63	3.59

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STATION 53

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.2	0.5	0.2	0.3
10	0.4	0.3	-	0.0	1.7
20	1.4	0.6	0.0	0.0	0.4
50	1.5	0.4	0.5	-	2.2
100	1.8	1.1	0.0	0.6	0.6
150	2.1	1.2	2.0	-	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.2	0.5	0.2	0.3
10	0.4	0.3	<0.5	0.0	1.7
20	1.4	0.6	0.0	0.0	0.4
30	1.4	0.6	<0.5	0.1	1.0
50	1.5	0.4	0.5	0.2	2.2
75	1.7	0.8	<0.5	0.4	1.4
100	1.8	1.1	0.0	0.6	0.6
150	2.1	1.2	2.0	-	0.0

STATION 54

DATE July 4, 1954 LAT. 33°03'N. LONG. 78°21'W. TIME 23
DEPTH 27 WIND 6 , 22 BAR. 15 AIR TEMP: dry 25.0°C, wet 24.4°C
HUMIDITY 96% WEATHER 63 CLOUDS: type 8 , amt. 9 SEA: dir. 24 , amt. 2
SWELL: dir. 20 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.53	35.67	23.07	4.79
10	27.51	35.68	23.09	4.77
20	27.06	36.00	23.47	4.83

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.53	35.67	23.07	4.79
10	27.51	35.68	23.09	4.77
20	27.06	36.00	23.47	4.83

STATION 54

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.2	0.5	0.8	0.9
10	1.2	0.3	0.5	0.4	0.8
20	0.5	0.3	0.0	2.1	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.2	0.5	0.8	0.9
10	1.2	0.3	0.5	0.4	0.8
20	0.5	0.3	0.0	2.1	-

STATION 55

DATE July 5, 1954 LAT. 33°18'N. LONG. 78°38'W. TIME 02
DEPTH 18 WIND 11 , 19 BAR. 15 AIR TEMP: dry 26.7°C, wet 25.0°C
HUMIDITY 87% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 17 , amt. 4
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.18	35.52	23.07	4.82
10	27.17	35.57	23.11	4.80

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.18	35.52	23.07	4.82
10	27.17	35.57	23.11	4.80

STATION 55

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.8	0.5	0.4	0.5
10	1.0	1.0	1.0	0.1	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.8	0.5	0.4	0.5
10	1.0	1.0	1.0	0.1	0.4

STATION 56

DATE July 5, 1954 LAT. 33°32'N. LONG. 78°54'W. TIME 05
DEPTH 9 WIND 6 , 25 BAR. 15 AIR TEMP: dry 27.2°C, wet 25.6°C
HUMIDITY 87% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 23 , amt. 3
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.98	-	-	4.60

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.98	-	-	4.60

STATION 56

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.3	0.3	0.5	0.0	1.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.3	0.3	0.5	0.0	1.4

STATION 57

DATE July 5, 1954 LAT. 33°34'N. LONG. 78°24'W. TIME 08
DEPTH 18 WIND 8 , 25 BAR. 14 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 25 , amt. 4
SWELL: dir. - , amt. - VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.66	35.10	22.60	4.74
10	27.68	35.12	22.61	4.79

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.66	35.10	22.60	4.74
10	27.68	35.12	22.61	4.79

STATION 57

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.4	0.0	-	0.0
10	1.3	0.4	0.0	2.4	<0.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.4	0.0	-	0.0
10	1.3	0.4	0.0	2.4	<0.1

STATION 58

DATE July 5, 1954 LAT. 33°36'N. LONG. 77°54'W. TIME 11
DEPTH 16 WIND 9 , 25 BAR. 14 AIR TEMP: dry 26.7°C, wet 23.9°C
HUMIDITY 79% WEATHER 01 CLOUDS: type 8 , amt. 4 SEA: dir. 25 , amt. 4
SWELL: dir. - , amt. - VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.29	35.17	22.77	4.75
10	27.19	35.12	22.77	4.79

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.29	35.17	22.77	4.75
10	27.19	35.12	22.77	4.79

STATION 58

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.2	0.6	0.0	-	0.7
10	0.6	0.6	0.0	-	0.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.2	0.6	0.0	-	0.7
10	0.6	0.6	0.0	-	0.6

STATION 59

DATE July 5, 1954 LAT. 33°22'N. LONG. 77°38'W. TIME 14
DEPTH 24 WIND 9 , 25 BAR. 14 AIR TEMP: dry 28.9°C, wet 26.1°C
HUMIDITY 80% WEATHER - CLOUDS: type 4 , amt. 2 SEA: dir. 25 , amt. 3
SWELL: dir. 22 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.80	35.93	23.50	4.91
10	26.80	35.89	23.47	4.86
20	24.37	36.09	24.38	4.99

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.80	35.93	23.50	4.91
10	26.80	35.89	23.47	4.86
20	24.37	36.09	24.38	4.99

STATION 59

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	3.4	-	0.5	1.7	1.4
10	0.5	0.3	<0.5	0.7	-
20	0.6	0.6	1.5	-	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	3.4	-	0.5	1.7	1.4
10	0.5	0.3	<0.5	0.7	0.8
20	0.6	0.6	1.5	-	0.2

STATION 60

DATE July 5, 1954 LAT. 33°08'N. LONG. 77°20'W. TIME 18
DEPTH 265 WIND 6 , 24 BAR. 14 AIR TEMP: dry 29.4°C, wet 26.7°C
HUMIDITY 80% WEATHER 03 CLOUDS: type 4 , amt. 3 SEA: dir. 26 , amt. 3
SWELL: dir. 20 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.51	36.07	23.38	4.83
10	27.40	36.08	23.42	4.77
20	27.29	36.00	23.40	4.79
50	22.48	36.33	25.11	4.85
100	19.44	36.51	26.08	3.70
150	17.35	36.33	26.47	3.65
200	14.97	35.96	26.74	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.51	36.07	23.38	4.83
10	27.40	36.08	23.42	4.77
20	27.29	36.00	23.40	4.79
30	25.44	36.13	24.08	4.81
50	22.48	36.33	25.11	4.85
75	20.84	36.47	25.67	4.14
100	19.44	36.51	26.08	3.70
150	17.35	36.33	26.47	3.65
200	14.97	35.96	26.74	-

STATION 60

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.4	0.2	0.5	-	-
10	1.3	0.6	2.5	0.0	0.7
20	-	0.3	1.0	-	1.3
50	1.5	0.2	1.0	1.1	0.2
100	2.0	1.1	1.0	0.1	1.6
150	1.4	1.2	7.5	-	1.4
200	1.9	1.8	2.5	2.1	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.4	0.2	0.5	-	-
10	1.3	0.6	2.5	0.0	0.7
20	1.3	0.3	1.0	-	1.3
30	1.4	0.3	1.0	-	0.9
50	1.5	0.2	1.0	1.1	0.2
75	1.8	0.7	1.0	0.6	0.9
100	2.0	1.1	1.0	0.1	1.6
150	1.4	1.2	7.5	1.1	1.4
200	1.9	1.8	2.5	2.1	0.2

STATION 61

DATE July 5, 1954 LAT. 32°54'N. LONG. 77°03'W. TIME 21
DEPTH 508 WIND 9 , 18 BAR. 13 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 83% WEATHER 01 CLOUDS: type 5 , amt. 1 SEA: dir. 19 , amt. 3
SWELL: dir. 23 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.19	36.06	23.15	4.64
10	28.19	35.97	23.08	4.69
20	27.37	35.88	23.28	4.76
50	23.80	36.33	24.73	4.75
100	18.99	36.44	26.14	3.86
150	15.39	35.97	26.65	3.19
200	13.66	35.73	26.84	3.36
300	10.72	35.37	27.13	3.06
400	8.89	35.14	27.27	3.11

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.19	36.06	23.15	4.64
10	28.19	35.97	23.08	4.69
20	27.37	35.88	23.28	4.76
30	26.12	36.06	23.82	4.76
50	23.80	36.33	24.73	4.75
75	21.24	36.39	25.50	4.28
100	18.99	36.44	26.14	3.86
150	15.39	35.97	26.65	3.19
200	13.66	35.73	26.84	3.36
250	12.05	35.53	27.01	3.17
300	10.72	35.37	27.13	3.06
400	8.89	35.14	27.27	3.11

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STATION 61

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	1.0	0.5	0.4	<0.1
10	0.4	0.4	0.0	0.3	0.2
20	1.0	0.1	0.5	0.6	1.7
50	1.5	-	0.0	0.0	0.6
100	1.4	0.8	4.5	1.3	0.0
150	1.4	1.4	2.0	0.0	1.9
200	-	2.4	1.0	0.4	0.4
300	-	2.0	17.0	0.5	1.5
400	-	2.3	24.0	12.9	1.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	1.0	0.5	0.4	<0.1
10	0.4	0.4	0.0	0.3	0.2
20	1.0	0.1	0.5	0.6	1.7
30	1.1	0.2	<0.5	0.4	1.3
50	1.5	0.4	0.0	0.0	0.6
75	1.5	0.6	2.5	0.7	0.3
100	1.4	0.8	4.5	1.3	0.0
150	1.4	1.4	2.0	0.0	1.9
200	-	2.4	1.0	0.4	0.4
250	-	2.2	9.0	0.4	1.0
300	-	2.0	17.0	0.5	1.5
400	-	2.3	24.0	12.9	1.3

STATION 62

DATE July 6, 1954 LAT. 32°40'N. LONG. 76°46'W. TIME 01
DEPTH 814 WIND 10 , 26 BAR. 13 AIR TEMP: dry 27.2°C, wet 25.6°C
HUMIDITY 87% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 26 , amt. 3
SWELL: dir. 23 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.88	36.04	23.24	4.74
8	27.90	36.00	23.20	4.75
13	27.90	35.93	23.15	4.75
35	26.30	36.08	23.77	4.86
70	21.78	36.26	25.26	4.62
105	19.05	36.22	25.96	4.06
140	16.85	36.11	26.42	3.42
210	14.95	36.35	27.04	3.33
280	12.73	35.64	26.96	3.22
355	11.21	35.45	27.11	3.18
495	8.02	35.05	27.33	3.05

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.88	36.04	23.24	4.74
10	27.90	35.97	23.18	4.75
20	27.49	35.98	23.32	4.81
30	26.75	36.05	23.61	4.85
50	24.14	36.18	24.51	4.80
75	21.36	36.26	25.37	4.54
100	19.41	36.23	25.87	4.14
150	16.60	36.20	26.55	3.41
200	15.24	36.32	26.95	3.34
250	13.59	35.88	26.97	3.26
300	12.34	35.59	27.00	3.21
400	10.23	35.33	27.19	3.15

STATION 62

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.2	0.3	<0.5	-	-
8	1.2	0.5	1.5	0.0	2.4
13	0.7	0.2	<0.5	0.0	0.4
35	1.5	0.2	0.0	1.8	1.5
70	1.4	0.5	1.5	-	0.9
105	1.7	0.8	2.5	0.0	0.8
140	2.0	1.1	6.5	-	0.3
210	2.3	1.4	10.5	-	0.6
280	2.5	1.9	9.0	0.0	1.1
355	-	1.8	10.0	2.2	0.8
495	2.2	2.2	10.0	1.6	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.2	0.3	<0.5	-	-
10	1.0	0.4	1.0	0.0	1.5
20	1.0	0.2	<0.5	0.6	0.8
30	1.4	0.2	0.0	1.4	1.3
50	1.5	0.3	0.5	1.4	1.2
75	1.5	0.5	1.5	0.8	0.9
100	1.7	0.8	2.5	0.0	0.8
150	2.1	1.2	7.0	-	0.4
200	2.3	1.4	10.0	-	0.5
250	2.4	1.7	9.5	-	0.9
300	2.5	1.9	9.5	0.6	1.0
400	2.3	2.0	10.0	2.0	0.7
500	2.2	2.2	10.0	1.6	0.4

STATION 63

DATE July 6, 1954 LAT. 33°13'N. LONG. 76°24'W. TIME 06
DEPTH 718 WIND 14, 22 BAR. 11 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 00 CLOUDS: type -, amt. - SEA: dir. 25, amt. 3
SWELL: dir. 23, amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.94	35.97	23.16	-
8	27.97	35.83	23.05	4.70
14	27.96	35.96	23.15	4.70
34	27.02	35.99	23.48	4.79
68	24.77	36.40	24.49	5.01
101	23.37	36.73	25.16	4.27
136	21.24	36.40	25.51	4.80
204	18.84	36.67	26.36	4.44
273	17.67	36.62	26.61	4.46
343	16.38	36.62	26.92	4.12
482	11.27	35.46	27.10	3.11

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.94	35.97	23.16	-
10	27.97	35.88	23.09	4.70
20	27.71	35.97	23.24	4.72
30	27.23	35.97	23.40	4.77
50	25.86	36.19	24.00	4.89
75	24.52	36.52	24.66	4.75
100	23.42	36.73	25.14	4.29
150	20.64	36.48	25.74	4.70
200	18.95	36.66	26.32	4.45
250	18.07	36.63	26.52	4.45
300	17.27	36.62	26.71	4.34
400	14.69	36.33	27.08	3.76

STATION 63

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.4	0.0	-	1.0
8	1.1	0.5	0.5	-	1.2
14	0.9	0.3	0.0	0.0	0.0
34	1.5	0.2	1.5	-	1.6
68	1.2	0.2	0.0	-	0.9
101	0.8	0.7	1.0	-	1.9
136	0.9	0.3	<0.5	-	0.5
204	0.9	-	4.5	0.9	0.4
273	0.9	0.5	6.0	2.6	1.3
343	1.1	0.7	1.5	-	-
482	2.2	1.6	1.5	0.0	4.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.4	0.0	-	1.0
10	1.0	0.4	0.5	0.0	0.8
20	1.1	0.3	0.5	-	0.5
30	1.4	0.2	1.0	-	1.3
50	1.3	0.2	1.0	-	1.3
75	1.1	0.3	<0.5	-	1.1
100	0.8	0.7	1.0	-	1.9
150	0.9	0.3	1.0	-	0.5
200	0.9	0.4	4.5	0.9	0.4
250	0.9	0.5	5.5	2.1	1.0
300	1.0	0.6	4.0	-	1.7
400	1.6	1.1	1.5	-	3.2

STATION 64

DATE July 6, 1954 LAT. 33°28'N. LONG. 76°39'W. TIME 10
DEPTH 365 WIND 13 , 24 BAR. 09 AIR TEMP: dry 27.2°C, wet 26.1°C
HUMIDITY 91% WEATHER 03 CLOUDS: type 6 , amt. 8 SEA: dir. 24 , amt. 3
SWELL: dir. 23 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.28	36.18	23.21	4.28
8	28.30	36.15	23.18	3.77
15	28.29	36.06	23.12	3.68
39	26.38	36.27	23.89	4.96
79	23.40	36.55	25.01	4.70
120	20.99	36.40	25.58	3.56
162	18.18	36.27	26.22	3.28
246	14.88	35.99	26.78	3.53

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.28	36.18	23.21	4.28
10	28.30	36.12	23.16	3.72
20	27.88	36.11	23.29	4.04
30	27.09	36.19	23.61	4.61
50	25.50	36.39	24.26	4.89
75	23.67	36.54	24.92	4.76
100	22.21	36.47	25.29	4.01
150	18.90	36.31	26.07	3.33
200	16.30	36.15	26.58	3.39

STATION 64

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	1.9	<0.5	0.0	1.5
8	1.9	-	0.5	3.6	0.5
15	0.8	0.2	0.5	2.6	0.6
39	0.9	0.5	0.0	0.0	0.4
79	1.3	0.2	0.5	0.2	0.0
120	3.1	1.2	0.0	-	1.3
162	1.5	1.2	0.5	1.0	0.0
246	1.9	1.2	3.0	-	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	1.9	<0.5	0.0	1.5
10	1.6	0.7	0.5	3.3	0.6
20	0.9	0.3	0.5	2.1	0.6
30	0.9	0.4	<0.5	1.0	0.5
50	1.1	0.4	<0.5	0.1	0.3
75	1.3	0.3	0.5	0.2	0.1
100	2.3	0.8	0.5	0.4	0.7
150	1.9	1.2	0.5	0.9	0.4
200	1.7	1.2	1.5	-	0.4
250	1.9	1.2	3.0	-	0.9

STATION 65

DATE July 7, 1954 LAT. 33°43'N. LONG. 76°56'W. TIME 19
DEPTH 40 WIND 8 , 18 BAR. 13 AIR TEMP: dry 28.3°C, wet 27.2°C
HUMIDITY 92% WEATHER 03 CLOUDS: type 8 , amt. 5 SEA: dir. 18 , amt. 3
SWELL: dir. 21 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.36	36.14	23.48	4.54
10	27.31	36.15	23.51	4.54
20	26.92	36.09	23.59	4.54
30	25.40	36.28	24.21	4.69

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.36	36.14	23.48	4.54
10	27.31	36.15	23.51	4.54
20	26.92	36.09	23.59	4.54
30	25.40	36.28	24.21	4.69

STATION 65

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.7	0.9	1.5	1.3	0.3
10	1.3	0.5	0.0	0.0	0.0
20	0.8	0.2	5.5	0.0	0.0
30	1.3	-	<0.5	1.2	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.7	0.9	1.5	1.3	0.3
10	1.3	0.5	0.0	0.0	0.0
20	0.8	0.2	5.5	0.0	0.0
30	1.3	-	<0.5	1.2	0.4

STATION 66

DATE July 7, 1954 LAT. 33°57'N. LONG. 77°13'W. TIME 22
DEPTH 25 WIND 10 , 18 BAR. 12 AIR TEMP: dry 28.3°C, wet 27.2°C
HUMIDITY 92% WEATHER 02 CLOUDS: type 8 , amt. 4 SEA: dir. 18 , amt. 3
SWELL: dir. 21 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.16	36.02	23.46	4.62
10	27.15	35.94	23.40	4.54
20	25.90	36.20	23.99	4.70

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.16	36.02	23.46	4.62
10	27.15	35.94	23.40	4.54
20	25.90	36.20	23.99	4.70

STATION 66

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.8	0.8	<0.5	0.5	0.0
10	0.8	0.2	<0.5	0.0	0.9
20	0.7	0.3	<0.5	0.0	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.8	0.8	<0.5	0.5	0.0
10	0.8	0.2	<0.5	0.0	0.9
20	0.7	0.3	<0.5	0.0	0.2

STATION 67

DATE July 8, 1954 LAT. 34°11'N. LONG. 77°30'W. TIME 01
DEPTH 18 WIND 11, 22 BAR. 12 AIR TEMP: dry 27.5°C, wet 26.7°C
HUMIDITY 96% WEATHER 01 CLOUDS: type 5, amt. 2 SEA: dir. 22, amt. 3
SWELL: dir. 20, amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.23	35.57	23.09	4.63
10	27.23	35.41	22.97	4.71

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.23	35.57	23.09	4.63
10	27.23	35.41	22.97	4.71

STATION 67

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.2	0.3	0.5	2.6	0.4
10	1.3	0.6	0.0	-	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.2	0.3	0.5	2.6	0.4
10	1.3	0.6	0.0	-	0.4

STATION 68

DATE July 8, 1954 LAT. 34°21'N. LONG. 77°09'W. TIME 04
DEPTH 20 WIND 14, 22 BAR. 13 AIR TEMP: dry 28.3°C, wet 27.2°C
HUMIDITY 92% WEATHER 00 CLOUDS: type -, amt. - SEA: dir. 22, amt. 4
SWELL: dir. 20, amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.25	35.57	23.09	4.63
10	27.93	35.66	22.93	4.95

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.25	35.57	23.09	4.63
10	27.93	35.66	22.93	4.95

STATION 68

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.6	0.7	1.0	0.0	0.6
10	0.8	0.4	5.0	-	1.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.6	0.7	1.0	0.0	0.6
10	0.8	0.4	5.0	-	1.4

STATION 69

DATE July 10, 1954 LAT. 34°32'N. LONG. 76°49'W. TIME 11
DEPTH 16 WIND 5 , 02 BAR. 17 AIR TEMP: dry 25.0°C, wet 23.9°C
HUMIDITY 91% WEATHER 01 CLOUDS: type 5 , amt. 6 SEA: dir. 02 , amt. 1
SWELL: dir. 18 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.06	35.77	23.30	4.87
10	27.14	35.71	23.23	4.78

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.06	35.77	23.30	4.87
10	27.14	35.71	23.23	4.78

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STATION 69

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.0	0.9	0.0	0.1	0.3
10	1.2	0.9	0.0	-	0.8

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.0	0.9	0.0	0.1	0.3
10	1.2	0.9	0.0	-	0.8

STATION 70

DATE July 10, 1954 LAT. 34°18'N. LONG. 76°32'W. TIME 14
DEPTH 24 WIND 3 , 12 BAR. 17 AIR TEMP: dry 25.0°C, wet 23.9°C
HUMIDITY 91% WEATHER 63 CLOUDS: type 8 , amt. 8 SEA: dir. 12 , amt. 1
SWELL: dir. 18 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.88	36.65	24.02	4.88
10	26.64	36.58	24.04	4.85
20	24.82	36.61	24.63	4.36

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.88	36.65	24.02	4.88
10	26.64	36.58	24.04	4.85
20	24.82	36.61	24.63	4.36

STATION 70

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.5	0.4	1.0	2.3	0.1
10	1.0	0.2	<0.5	1.7	0.2
20	1.6	0.4	1.0	0.1	2.6

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.5	0.4	1.0	2.3	0.1
10	1.0	0.2	<0.5	1.7	0.2
20	1.6	0.4	1.0	0.1	2.6

STATION 71

DATE July 10, 1954 LAT. 34°04' N. LONG. 76°14' W. TIME 17
DEPTH 135 WIND 2 , 13 BAR. 17 AIR TEMP: dry 23.9 °C, wet 22.2 °C
HUMIDITY 87% WEATHER 61 CLOUDS: type - , amt. 9 SEA: dir. - , amt. -
SWELL: dir. 18 , amt. 3 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.88	36.53	23.61	4.71
10	28.01	36.42	23.48	4.79
20	27.77	36.42	23.56	4.79
50	25.73	36.48	24.25	4.71
100	21.76	36.53	25.47	4.38

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.88	36.53	23.61	4.71
10	28.01	36.42	23.48	4.79
20	27.77	36.42	23.56	4.79
30	27.12	36.44	23.78	4.77
50	25.73	36.48	24.25	4.71
75	23.83	36.51	24.85	4.58
100	21.76	36.53	25.47	4.38

STATION 71

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.4	0.3	0.5	0.1	0.0
10	1.3	0.2	-	-	0.9
20	-	0.5	0.5	2.7	0.1
50	0.8	0.2	0.5	0.0	0.1
100	0.6	0.6	0.5	2.6	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.4	0.3	0.5	0.1	0.0
10	1.3	0.2	0.5	1.4	0.9
20	1.2	0.5	0.5	2.7	0.1
30	1.1	0.4	0.5	1.8	0.1
50	0.8	0.2	0.5	0.0	0.1
75	0.7	0.4	0.5	1.3	0.2
100	0.6	0.6	0.5	2.6	0.4

STATION 72

DATE July 10, 1954 LAT. 33°50'N. LONG. 75°59'W. TIME 21
DEPTH 667 WIND 6 , 14 BAR. 17 AIR TEMP: dry 25.0°C, wet 23.9°C
HUMIDITY 91% WEATHER 61 CLOUDS: type - , amt. 8 SEA: dir. 14 , amt. 1
SWELL: dir. 18 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.18	36.26	23.30	4.60
10	28.20	36.11	23.18	4.69
20	28.22	36.17	23.22	4.70
48	25.72	36.26	24.09	5.03
97	22.57	36.69	25.36	3.96
146	19.35	36.47	26.07	3.62
195	17.89	36.28	26.30	3.65
293	15.48	36.10	26.73	3.19
389	11.89	35.54	27.05	3.57
583	7.94	35.10	27.38	3.70

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.18	36.26	23.30	4.60
10	28.20	36.11	23.18	4.69
20	28.22	36.17	23.22	4.70
30	27.27	36.19	23.55	4.90
50	25.59	36.29	24.15	4.97
75	23.99	36.58	24.86	4.35
100	22.32	36.68	25.42	3.93
150	19.22	36.45	26.09	3.63
200	17.80	36.28	26.32	3.61
250	16.69	36.23	26.55	3.29
300	15.18	36.05	26.76	3.22
400	11.55	35.49	27.07	3.60
500	9.09	35.17	27.26	3.64

STATION 72

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.2	0.2	0.5	0.0	0.6
10	0.9	-	0.0	0.2	0.0
20	0.7	0.4	0.0	0.0	0.3
48	-	1.2	0.5	1.5	0.7
97	1.4	-	0.5	1.9	0.5
146	1.0	-	6.5	-	0.0
195	5.4	0.8	10.0	0.4	1.0
293	1.2	1.2	13.5	1.4	0.3
389	-	1.7	11.0	1.3	0.3
583	-	1.4	5.5	0.0	-

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.2	0.2	0.5	0.0	0.6
10	0.9	0.3	0.0	0.2	0.0
20	0.7	0.4	0.0	0.0	0.3
30	0.8	0.7	<0.5	0.5	0.4
50	-	1.2	0.5	1.5	0.7
75	1.2	1.1	0.5	1.7	0.6
100	1.4	1.1	0.5	1.9	0.5
150	1.0	1.0	6.5	1.2	0.0
200	5.4	0.8	10.0	0.4	1.0
250	3.3	1.0	12.0	0.9	0.6
300	1.2	1.2	13.5	1.4	0.3
400	-	1.7	11.0	1.3	0.3
500	-	1.5	8.5	0.7	-

STATION 73

DATE July 11, 1954 LAT. 34°10'N. LONG. 75°20'W. TIME 02
DEPTH 3017 WIND 8 , 16 BAR. 17 AIR TEMP: dry 24.4°C, wet 22.8°C
HUMIDITY 87% WEATHER 61 CLOUDS: type - , amt. - SEA: dir. 16 , amt. 2
SWELL: dir. 18 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.12	35.88	23.36	4.62
7	27.16	35.79	23.28	4.73
14	27.16	35.91	23.37	4.70
35	27.18	36.02	23.45	4.74
70	22.46	36.46	25.22	5.22
105	20.30	36.56	25.89	5.28
141	19.32	36.58	26.16	4.55
213	18.32	36.57	26.41	4.71
290	17.94	36.51	26.46	4.70
320	17.58	36.46	26.51	4.66
378	17.25	36.44	26.58	4.49
435	16.58	36.20*	26.55	4.24
555	14.20	35.85	26.82	3.81
625	-	35.48*	-	3.70
800	-	35.37*	-	3.23
997	4.42	35.10	27.84	5.80

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.12	35.88	23.36	4.62
10	27.16	35.85	23.33	4.71
20	27.17	35.93	23.38	4.71
30	27.18	35.98	23.42	4.71
50	24.84	36.25	24.35	5.00
75	22.08	36.48	25.34	5.23
100	20.54	36.55	25.82	5.27
150	19.16	36.58	26.20	4.58
200	18.45	36.58	26.39	4.69
250	18.24	36.55	26.42	4.71
300	17.81	36.49	26.48	4.69
400	17.03	36.41	26.55	4.39
500	15.31	36.05	26.73	3.96
600	13.28	35.76	26.94	3.74
800	8.98	35.42	27.47	3.23

STATION 73

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.3	<0.5	14.3	1.2
7	1.3	0.2	0.0	3.6	11.2
14	1.1	0.4	0.0	0.8	0.0
35	0.8	0.3	0.0	1.1	6.1
70	1.3	0.2	0.5	0.0	0.0
105	1.0	0.1	0.0	0.0	<0.1
141	0.6	-	0.0	0.8	1.4
213	1.2	0.6	1.0	0.0	1.2
290	1.7	0.6	1.0	0.0	1.1
320	0.9	0.4	2.5	2.6	0.7
382	0.9	0.6	4.0	0.0	0.0
435	1.8	-	4.0	0.0	<0.1
555	1.5	1.0	8.0	0.9	0.4
625	1.7	1.6	7.5	0.0	1.0
800	3.3	1.9	1.5	0.0	0.5
997	1.4	1.5	1.0	0.0	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.3	<0.5	14.3	1.2
10	1.2	0.2	0.0	2.4	7.0
20	1.0	0.4	0.0	0.9	1.9
30	0.9	0.4	0.0	1.1	4.8
50	1.0	0.2	<0.5	0.6	3.5
75	1.2	0.2	0.5	0.0	0.0
100	1.1	0.1	0.0	0.0	<0.1
150	0.7	0.3	<0.5	0.8	1.4
200	1.1	0.6	1.0	0.2	1.2
250	1.4	0.6	1.0	0.0	1.2
300	1.4	0.5	1.5	1.0	1.0
400	1.2	0.6	4.0	0.0	0.0
500	1.6	0.9	6.0	0.5	0.2
600	1.6	1.4	8.0	0.3	0.8
700	2.4	1.7	5.0	0.0	0.8
800	3.3	1.9	1.5	0.0	0.5
1000	1.4	1.5	1.0	0.0	0.7

STATION 74

DATE July 11, 1954 LAT. 34°24'N. LONG. 75°36'W. TIME 08
DEPTH 2377 WIND 10 , 12 BAR. 14 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 00 CLOUDS: type - , amt. - SEA: dir. 12 , amt. 2
SWELL: dir. 18 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.70	36.09	23.33	4.70
10	27.72	36.20	23.41	4.71
20	27.75	36.32	23.49	4.72
49	25.65	36.46	24.26	4.96
98	22.78	36.44	25.11	4.28
146	20.50	36.62	25.88	3.80
195	18.74	36.58	26.31	4.03
294	17.02	36.20	26.45	3.95
367	13.98	35.81	26.83	2.70
393	13.72	35.81	26.89	3.65
458	12.05	35.49	26.98	3.17
492	10.75	35.37	27.13	3.27
540	7.06*	35.28	27.65	4.20
615	6.06	35.08	27.63	4.72
711	4.60	35.09	27.81	5.92

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.70	36.09	23.33	4.70
10	27.72	36.20	23.41	4.71
20	27.75	36.32	23.49	4.72
30	26.99	36.38	23.78	4.86
50	25.59	36.46	24.28	4.94
75	24.06	36.44	24.73	4.58
100	22.67	36.45	25.15	4.25
150	20.32	36.62	25.93	3.83
200	18.67	36.56	26.30	4.03
250	18.13	36.39	26.32	3.99
300	16.64	36.15	26.50	3.63
400	13.59	35.77	26.89	3.56
500	10.30	35.36	27.20	3.46
600	6.44	35.11	27.60	4.59

STATION 74

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.9	0.4	0.0	0.4	1.7
10	1.0	0.4	<0.5	0.6	<0.1
20	1.0	0.4	0.5	0.8	0.0
49	0.9	0.4	0.5	1.7	0.4
98	-	0.7	1.0	0.9	0.7
146	0.9	1.0	1.0	0.3	<0.1
195	0.8	0.6	5.5	0.0	0.7
294	-	1.1	2.0	0.0	0.0
367	-	1.9	16.0	0.1	0.3
393	1.3	1.1	13.5	0.6	0.4
458	1.5	1.2	10.0	1.6	1.4
492	1.5	1.4	1.5*	0.0	0.0
540	3.1	1.2	24.0	2.3	1.4
615	1.8	0.7	4.0*	1.4	0.8
711	0.7	0.7	10.5	0.6	0.2

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.9	0.4	0.0	0.4	1.7
10	1.0	0.4	<0.5	0.6	<0.1
20	1.0	0.4	0.5	0.8	0.0
30	1.0	0.4	0.5	1.1	0.1
50	0.9	0.4	0.5	1.7	0.4
75	0.9	0.5	0.5	1.3	0.5
100	0.9	0.7	1.0	0.9	0.7
150	0.9	1.0	1.0	0.3	<0.1
200	0.8	0.6	5.5	0.0	0.7
250	0.9	0.9	3.5	0.0	0.3
300	1.1	1.1	2.0	0.0	0.0
400	1.3	1.1	13.5	0.6	0.4
500	1.5	1.4	17.5	0.0	0.0
600	2.1	0.8	19.5	1.6	0.9
700	0.8	0.7	11.5	0.7	0.3

STATION 76

DATE July 12, 1954 LAT. 34°53'N. LONG. 76°10'W. TIME 05
DEPTH 20 WIND 3 , 12 BAR. 17 AIR TEMP: dry 25.0°C, wet 23.9°C
HUMIDITY 91% WEATHER 61 CLOUDS: type - , amt. - SEA: dir. 12 , amt. 1
SWELL: dir. 18 , amt. 3 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.14	35.37	23.60	4.86
10	25.08	35.70	23.87	4.87

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.14	35.37	23.60	4.86
10	25.08	35.70	23.87	4.87

STATION 76

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.3	0.1	0.5	0.0	0.8
10	0.9	0.8	0.0	0.0	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.3	0.1	0.5	0.0	0.8
10	0.9	0.8	0.0	0.0	0.0

STATION 77

DATE July 12, 1954 LAT. 35°01'N. LONG. 75°45'W. TIME 02
DEPTH 24 WIND 13 , 03 BAR. 13 AIR TEMP: dry 23.9°C, wet 22.8°C
HUMIDITY 91% WEATHER 61 CLOUDS: type - , amt. 9 SEA: dir. 02 , amt. 2
SWELL: dir. 17 , amt. 3 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	25.02	35.65	23.85	4.91
10	24.96	35.99	24.12	-
20	24.59	36.18	24.38	4.91

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	25.02	35.65	23.85	4.91
10	24.96	35.99	24.12	4.91
20	24.59	36.18	24.38	4.91

STATION 77

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.6	0.0	-	1.0
10	0.6	0.2	0.0	-	0.3
20	0.5	0.6	<0.5	-	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.6	0.0	-	1.0
10	0.6	0.2	0.0	-	0.3
20	0.5	0.6	<0.5	-	0.0

STATION 78

DATE July 11, 1954 LAT. 35°06'N. LONG. 75°20'W. TIME 23
DEPTH 23 WIND 4 , 36 BAR. 13 AIR TEMP: dry 23.9°C, wet 22.8°C
HUMIDITY 91% WEATHER 61 CLOUDS: type 6 , amt. 8 SEA: dir. 36 , amt. 1
SWELL: dir. 17 , amt. 4 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.42	35.73	23.47	4.86
10	26.58	35.94	23.58	4.65
20	26.29	36.10	23.79	4.80

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.42	35.73	23.47	4.86
10	26.58	35.94	23.58	4.65
20	26.29	36.10	23.79	4.80

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STATION 78

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.2	<0.5	3.7	<0.1
10	1.6	0.9	0.5	1.7	0.3
20	-	1.1	<0.5	0.5	0.3

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.2	<0.5	3.7	<0.1
10	1.6	0.9	0.5	1.7	0.3
20	-	1.1	<0.5	0.5	0.3

STATION 79

DATE July 11, 1954 LAT. 34°53'N. LONG. 75°04'W. TIME 19
DEPTH 2743 WIND 7 , 24 BAR. 15 AIR TEMP: dry 26.1°C, wet 23.9°C
HUMIDITY 83% WEATHER 61 CLOUDS: type - , amt. - SEA: dir. 24 , amt. 3
SWELL: dir. 19 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.31	35.86	23.29	4.60
9	27.46	35.93	23.29	4.70
18	27.43	35.86	23.25	4.71
45	27.49	35.93	23.28	4.70
92	23.20	36.60	25.11	5.00
140	21.34	36.67	25.69	4.71
180	20.18	36.64	25.98	5.04
265	18.38*	36.47	26.32	4.54
343	17.24	36.49	26.62	4.15
475	-	35.48	-	3.28
600	7.21	35.08	27.47	4.02
710	4.81	35.01	27.73	5.63

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.31	35.86	23.29	4.60
10	27.46	35.92	23.28	4.70
20	27.43	35.86	23.25	4.71
30	27.46	35.88	23.25	4.71
50	26.92	36.03	23.54	4.76
75	24.47	36.43	24.60	4.96
100	22.85	36.62	25.22	4.90
150	21.03	36.67	25.77	4.81
200	19.70	36.62	26.09	4.94
250	18.66	36.57	26.33	4.68
300	17.98	36.53	26.47	4.40
400	14.48	35.98	26.86	3.57
500	10.38	35.37	27.19	3.34
600	7.21	35.08	27.47	4.02

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	0.8	0.6	0.0	0.6	0.0
9	0.7	0.2	0.0	-	1.6
18	1.4	0.2	0.0	1.6	0.6
45	-	1.1	<0.5	0.3	0.6
92	0.6	0.6	0.0	0.0	0.5
140	1.0	0.2	0.5	-	0.9
180	0.5	0.5	<0.5	0.4	0.0
265	0.8	-	1.5	1.3	0.0
343	1.3	1.0	-	-	0.3
475	2.2	0.2	1.0	1.7	0.7
600	3.1	1.5	21.0	0.0	0.6
710	2.5	2.3	12.0	2.5	1.1

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	0.8	0.6	0.0	0.6	0.0
10	0.7	0.2	0.0	1.2	1.6
20	1.4	0.3	0.0	1.5	0.6
30	1.3	0.6	<0.5	1.0	0.6
50	1.1	1.1	<0.5	0.3	0.6
75	0.8	0.8	<0.5	0.1	0.6
100	0.7	0.5	<0.5	0.0	0.6
150	0.9	0.3	0.5	0.3	0.7
200	0.6	0.6	0.5	0.6	0.0
250	0.8	0.8	1.5	1.2	0.0
300	1.1	0.9	1.5	1.4	0.2
400	1.8	0.7	1.0	1.6	0.5
500	2.4	0.5	5.0	1.4	0.7
600	3.1	1.5	21.0	0.0	0.6
700	2.5	2.3	12.0	2.5	1.1

STATION 80

DATE July 11, 1954 LAT. 34°39'N. LONG. 74°48'W. TIME 14
DEPTH 3200 WIND 12 , 21 BAR. 15 AIR TEMP: dry 25.6 °C, wet 24.4 °C
HUMIDITY 91% WEATHER 60 CLOUDS: type 8 , amt. 8 SEA: dir. 20 , amt. 4
SWELL: dir. 19 , amt. 3 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.57	35.89	23.23	4.60
10	27.59	36.02	23.32	4.62
19	27.60	35.97	23.28	4.62
48	26.01	36.33	24.05	4.62
96	22.70	36.64	25.28	4.45
145	20.99	36.69	25.80	4.70
194	19.18	36.59	26.21	4.24
293	18.07	36.51	26.43	4.78
393	17.55	36.49	26.54	4.73
493	15.98	36.17	26.67	4.12
515	15.34	36.09	26.75	4.03
678	10.93	35.98*	27.57	3.02
846	8.02	35.09	27.36	3.70
1010	5.56	35.10	27.71	5.10
1243	4.35	34.99	27.76	5.90
1590	4.67*	34.90	27.66	5.69

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.57	35.89	23.23	4.60
10	27.59	36.02	23.32	4.62
20	27.55	35.98	23.30	4.62
30	27.03	36.12	23.57	4.62
50	25.84	36.35	24.12	4.60
75	23.95	36.54	24.84	4.47
100	22.56	36.65	25.33	4.50
150	20.77	36.68	25.85	4.63
200	19.10	36.58	26.22	4.29
250	18.48	36.54	26.35	4.62
300	18.07	36.51	26.43	4.78
400	17.51	36.47	26.54	4.68
500	15.78	36.14	26.69	4.09
600	12.62	35.74	27.06	3.95
800	8.78	35.17	27.31	3.54
1000	5.67	35.10	27.69	5.03
1200	4.49	35.01	27.76	5.81
1500	-	34.91	-	5.74

STATION 80

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	-	0.6	0.0	0.0	0.0
10	0.4	0.1	0.0	0.0	1.2
19	0.4	0.0	0.5	0.0	0.0
48	1.5	0.3	0.0	0.1	0.0
96	1.0	0.2	0.5	0.3	0.4
145	0.4	0.3	0.5	2.6	0.0
194	3.4	1.2	0.5	0.9	0.1
293	2.3	0.5	3.0	0.1	0.1
393	1.0	1.1	2.5	1.7	0.3
493	1.6	1.3	5.5	1.6	0.9
515	-	2.4	11.5	0.5	0.2
678	-	2.1	26.5	0.8	0.3
846	-	1.7	12.5	0.1	0.0
1010	2.2	1.6	1.5	-	0.0
1243	2.2	1.5	3.0	-	0.1
1590	-	2.3	19.0	1.2	0.0

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	-	0.6	0.0	0.0	0.0
10	0.4	0.1	0.0	0.0	1.2
20	0.4	0.0	0.5	0.0	0.0
30	0.8	0.1	<0.5	<0.1	0.0
50	1.5	0.3	0.0	0.1	0.0
75	1.3	0.3	<0.5	0.2	0.2
100	1.0	0.2	0.5	0.3	0.4
150	0.4	0.3	0.5	2.6	0.0
200	3.4	1.2	0.5	0.9	0.1
250	2.9	0.9	1.5	0.5	0.1
300	2.3	0.5	3.0	0.1	0.1
400	1.0	1.1	2.5	1.7	0.3
500	1.6	1.3	5.5	1.6	0.9
600	-	2.2	19.5	0.7	0.3
700	-	2.0	24.5	0.7	0.3
800	-	1.8	16.5	0.3	0.1
1000	2.2	1.6	1.5	-	0.0
1200	2.2	1.5	3.0	-	0.1
1500	-	2.1	15.0	1.2	0.0

STATION Standard 1

DATE June 12, 1954 LAT. 26°21'N. LONG. 76°43'W. TIME 23
DEPTH 4938 WIND 4 , 19 BAR. 15 AIR TEMP: dry 28.3°C, wet 23.9°C
HUMIDITY 69% WEATHER 03 CLOUDS: type 8 , amt. 1 SEA: dir. 19 , amt. 1
SWELL: dir. 01 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.93	36.82	23.81	4.54
10	27.35	36.76	23.95	4.47
20	26.81	36.75	24.12	4.54
50	24.94	36.71	24.67	4.84
100	22.98	36.61*	25.18	4.82
150	21.74	36.71	25.61	4.69
200	19.97	36.67	26.06	4.48
300	18.47	36.61	26.40	4.67
400	17.62	36.47	26.51	4.46
600	14.35	35.90	26.82	3.80
800	10.11	35.32	27.20	3.32
1000	6.22	34.99	27.54	4.43

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.93	36.82	23.81	4.54
10	27.35	36.76	23.95	4.47
20	26.81	36.75	24.12	4.54
30	26.13	36.74	24.33	4.67
50	24.94	36.71	24.67	4.84
75	23.87	36.71	24.99	4.84
100	22.98	36.71	25.26	4.82
150	21.74	36.71	25.61	4.69
200	19.97	36.67	26.06	4.48
250	19.14	36.65	26.26	4.58
300	18.47	36.61	26.40	4.67
400	17.62	36.47	26.51	4.46
500	16.11	36.19	26.65	4.11
600	14.35	35.90	26.82	3.80
800	10.11	35.32	27.20	3.32
1000	6.22	34.99	27.54	4.43

STATION Standard 1

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.3	0.5	<0.5	0.2	0.3
10	1.0	0.5	1.0	1.3	0.8
20	0.8	-	<0.5	0.0	0.5
50	0.8	0.8	<0.5	0.8	1.2
100	0.6	-	0.5	3.2	1.4
150	1.2	0.3	1.0	0.0	0.1
200	1.9	0.2	0.5	1.2	1.1
300	-	1.8	2.0	0.0	0.3
400	-	-	0.5	0.0	0.8
600	1.6	1.5	3.0	4.9	0.4
800	2.2	1.8	9.5	-	1.2
1000	-	2.3	5.0	-	0.7

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.3	0.5	<0.5	0.2	0.3
10	1.0	0.5	1.0	1.3	0.8
20	0.8	0.6	<0.5	0.0	0.5
30	0.8	0.7	<0.5	0.3	0.7
50	0.8	0.8	<0.5	0.8	1.2
75	0.7	0.7	<0.5	2.0	1.3
100	0.6	0.6	0.5	3.2	1.4
150	1.2	0.3	1.0	0.0	0.1
200	1.9	0.2	0.5	1.2	1.1
250	1.9	1.0	1.5	0.6	0.7
300	1.8	1.8	2.0	0.0	0.3
400	1.7	1.7	0.5	0.0	0.8
500	1.6	1.6	2.0	2.5	0.6
600	1.6	1.5	3.0	4.9	0.4
700	1.9	1.7	6.5	-	0.8
800	2.2	1.8	9.5	-	1.2
1000	-	2.3	5.0	-	0.7

STATION Standard 2

DATE June 13, 1954 LAT. 26°20'N. LONG. 76°44'W. TIME 02
DEPTH 4846 WIND 4 , 19 BAR. 17 AIR TEMP: dry 27.8°C, wet 25.6°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 5 , amt. 2 SEA: dir. 19 , amt. 1
SWELL: dir. 01 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.57	36.58	23.74	4.54
10	27.48	36.60	23.79	4.59
20	27.12	36.62	23.92	4.63
50	24.65	36.58	24.66	4.93
100	23.10	36.62	25.15	4.87
150	21.51	36.64	25.62	4.62
200	20.13	36.70	26.04	4.54
300	18.55	36.55	26.34	4.54
400	17.88	36.47	26.44	4.54
600	14.98	36.04	26.80	-
800	10.82	35.41	27.15	-
1000	6.74	35.07	27.53	4.13

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.57	36.58	23.74	4.54
10	27.48	36.60	23.79	4.59
20	27.12	36.62	23.92	4.63
30	26.17	36.60	24.21	4.76
50	24.65	36.58	24.66	4.93
75	23.88	36.60	24.91	4.92
100	23.10	36.62	25.15	4.87
150	21.51	36.64	25.62	4.62
200	20.13	36.70	26.04	4.54
250	19.23	36.62	26.22	4.54
300	18.55	36.55	26.34	4.54
400	17.88	36.47	26.44	4.54
500	16.59	36.28	26.61	-
600	14.98	36.04	26.80	-
800	10.82	35.41	27.15	-
1000	6.74	35.07	27.53	4.13

STATION Standard 3

DATE June 13, 1954 LAT. 26°20'N. LONG. 76°45'W. TIME 05
DEPTH 4755 WIND 4 , 16 BAR. 17 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 84% WEATHER 02 CLOUDS: type -, amt. 6 SEA: dir. 16, amt. 1
SWELL: dir. 01, amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.50	36.62	23.80	4.61
10	27.38	36.64	23.85	4.67
20	26.44	36.51	24.05	-
50	24.62	36.58	24.67	-
100	22.88	36.64	25.23	4.92
150	21.72	36.70	25.61	4.75
200	20.09	36.65	26.01	4.60
300	18.46	36.55	26.36	-
400	17.81	36.49	26.48	-
600	14.43	35.91	26.82	4.70*
777	10.43	35.38	27.19	3.32
974	6.48	35.08	27.57	4.31
1170	4.71	35.05	27.77	5.64
1468	-	35.06	-	6.12
1968	3.49	35.05	27.90	6.10
2468	3.14	34.96*	27.86	6.26

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.50	36.62	23.80	4.61
10	27.38	36.64	23.85	4.67
20	26.44	36.51	24.05	4.73
30	25.77	36.54	24.29	4.79
50	24.62	36.58	24.67	4.87
75	23.66	36.61	24.98	4.92
100	22.88	36.64	25.23	4.92
150	21.72	36.70	25.61	4.75
200	20.09	36.65	26.01	4.60
250	19.15	36.60	26.22	-
300	18.46	36.55	26.36	-
400	17.81	36.49	26.48	-
500	16.50	36.24	26.60	-
600	14.43	35.91	26.82	-
800	9.86	35.33	27.25	3.33
1000	6.12	35.07	27.61	4.58
1200	4.65	35.05	27.78	5.75
1500	3.98	35.06	27.86	6.11
2000	3.46	-	-	6.10

STATION Standard 3

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	0.3	<0.5	0.3	1.2
10	0.5	-	0.5	3.8	0.3
20	1.1	0.3	0.0	3.6	1.3
50	0.6	0.5	-	0.9	0.2
100	0.9	-	<0.5	5.9	-
150	2.2	-	<0.5	2.6	1.5
200	0.9	0.5	1.5	0.0	0.9
300	-	1.1	2.5	0.0	0.6
400	1.3	-	0.5	0.0	1.2
600	2.4	0.8	0.5	0.9	1.5
777	2.0	1.1	4.5	-	1.2
974	4.1	1.5	4.5	1.0	-
1170	3.1	1.6	12.5	-	1.3
1468	2.5	1.8	2.0	0.3	0.6
1968	2.4	1.9	5.0	2.4	1.1
2468	2.5	-	18.5	1.2	0.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	0.3	<0.5	0.3	1.2
10	0.5	0.3	0.5	3.8	0.3
20	1.1	0.3	0.0	3.6	1.3
30	0.9	0.4	-	2.7	0.9
50	0.6	0.5	-	0.9	0.2
75	0.8	-	-	3.4	0.6
100	0.9	-	<0.5	5.9	0.9
150	2.2	-	<0.5	2.6	1.5
200	0.9	0.5	1.5	0.0	0.9
250	1.0	0.8	2.0	0.0	0.8
300	1.1	1.1	2.5	0.0	0.6
400	1.3	1.0	0.5	0.0	1.2
500	1.9	0.9	0.5	0.5	1.4
600	2.4	0.8	0.5	0.9	1.5
700	2.2	1.0	3.0	0.9	1.4
800	2.3	1.1	4.5	1.0	1.2
1000	4.0	1.5	5.5	1.0	1.3
1200	3.1	1.6	12.5	0.7	1.3
1500	2.5	1.8	2.0	0.3	0.6
2000	2.4	1.9	5.0	2.4	1.1
2500	2.5	-	18.5	1.2	0.2

STATION Standard 4

DATE June 13, 1954 LAT. 26°20'N. LONG. 76°45'W. TIME 09
DEPTH 4572 WIND 3 , 15 BAR. 15 AIR TEMP: dry 27.2 °C, wet 24.4 °C
HUMIDITY 80% WEATHER 01 CLOUDS: type 8 , amt. 3 SEA: dir. 16 , amt. 1
SWELL: dir. 01 , amt. 2 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.32	36.56	23.81	4.59
10	27.33	36.61	23.84	4.63
20	26.37	36.47	24.05	4.69
50	24.90	36.59	24.59	4.88
100	22.98	36.62	25.19	4.86
150	21.89	36.65	25.52	4.70
200	20.24	36.73	26.03	4.54
300	18.49	36.58	26.38	4.63
400	17.78	36.45	26.45	4.56
600	14.39	35.93	26.84	3.86
800	9.97	35.31	27.22	3.29
1000	6.25	35.06	27.59	4.47

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.32	36.56	23.81	4.59
10	27.33	36.61	23.84	4.63
20	26.37	36.47	24.05	4.69
30	25.85	36.52	24.25	4.77
50	24.90	36.59	24.59	4.88
75	23.84	36.61	24.93	4.88
100	22.98	36.62	25.19	4.86
150	21.89	36.65	25.52	4.70
200	20.24	36.73	26.03	4.54
250	19.24	36.68	26.26	4.61
300	18.49	36.58	26.38	4.63
400	17.78	36.45	26.45	4.56
500	16.21	36.20	26.64	4.27
600	14.39	35.93	26.84	3.86
800	9.97	35.31	27.22	3.29
1000	6.25	35.06	27.59	4.47

STATION Standard 5

DATE June 13, 1954 LAT. 26°21'N. LONG. 76°42'W. TIME 12
DEPTH 4755 WIND 3 , 17 BAR. 17 AIR TEMP: dry 27.2°C, wet 24.4°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 8 , amt. 5 SEA: dir. 17 , amt. 1
SWELL: dir. 11 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.37	36.62	23.84	4.62
10	27.38	36.63	23.84	4.64
20	26.98	36.55	23.91	4.69
50	24.78	36.56	24.61	4.91
100	23.08	36.58	25.13	4.87
150	21.79	36.69	25.58	4.62
200	20.38	36.71	25.98	4.61
300	18.50	36.54	26.34	4.61
400	17.71	36.46	26.48	4.54
600	14.08	35.89	26.88	4.62*
800	9.67	35.30	27.26	3.38
1000	6.08	35.03	27.59	4.51

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.37	36.62	23.84	4.62
10	27.38	36.63	23.84	4.64
20	26.98	36.55	23.91	4.69
30	26.15	36.55	24.18	4.78
50	24.78	36.56	24.61	4.91
75	23.88	36.56	24.88	4.92
100	23.08	36.58	25.13	4.87
150	21.79	36.69	25.58	4.62
200	20.38	36.71	25.98	4.61
250	19.30	36.61	26.19	4.61
300	18.50	36.54	26.34	4.61
400	17.71	36.46	26.48	4.54
500	15.99	36.18	26.67	4.32
600	14.08	35.89	26.88	3.95
800	9.67	35.30	27.26	3.38
1000	6.09	35.03	27.59	4.51

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STATION Standard 5

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.4	1.3	1.0	0.0	-
10	3.5	0.9	0.5	-	1.1
20	2.3	0.5	0.0	3.2	1.4
50	2.2	0.3	<0.5	0.0	0.2
100	1.0	1.0	0.0	0.6	-
150	3.0	0.1	1.0	0.0	-
200	1.9	0.5	0.5	-	-
300	2.0	0.9	<0.5	0.3	1.0
400	2.1	1.8	0.5	0.0	1.3
600	1.9	2.1	3.5	-	0.7
800	3.6	-	7.0	0.0	2.6
1000	2.9	0.9	21.5	0.4	0.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.4	1.3	1.0	0.0	-
10	3.5	0.9	0.5	-	1.1
20	2.3	0.5	0.0	3.2	1.4
30	2.3	0.4	<0.5	-	1.0
50	2.2	0.3	<0.5	0.0	0.2
75	1.6	0.7	<0.5	0.3	-
100	1.0	1.0	0.0	0.6	-
150	3.0	0.1	1.0	0.0	-
200	1.9	0.5	0.5	0.1	-
250	2.0	0.7	<0.5	0.2	-
300	2.0	0.9	<0.5	0.3	1.0
400	2.1	1.8	0.5	0.0	1.3
500	2.0	2.0	2.0	-	1.0
600	1.9	2.1	3.5	-	0.7
700	2.8	-	5.0	-	1.7
800	3.6	-	7.0	0.0	2.6
1000	2.9	0.9	21.5	0.4	0.9

STATION Standard 6

DATE June 13, 1954 LAT. 26°21'N. LONG. 76°41'W. TIME 15
DEPTH 4572 WIND 2 , 17 BAR. 19 AIR TEMP: dry 27.2°C, wet 24.4°C
HUMIDITY 80% WEATHER 02 CLOUDS: type 2 , amt. 1 SEA: dir. 17 , amt. 1
SWELL: dir. 11 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.69	36.55	23.68	4.59
10	27.38	36.60	23.82	4.62
20	26.47	36.55	24.08	4.70
50	24.87	36.69	24.68	4.94
100	23.06	36.64	25.18	4.89
150	21.87	36.72	25.58	4.64
200	20.23	36.71	26.02	4.61
300	18.47	36.53	26.34	4.61
400	17.75	36.42	26.44	4.55
600	14.03	35.90	26.89	3.86
800	9.21	35.21	27.27	3.41
1000	5.94	35.03	27.61	4.77

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.69	36.55	23.68	4.59
10	27.38	36.60	23.82	4.62
20	26.47	36.55	24.08	4.70
30	25.89	36.61	24.30	4.80
50	24.87	36.69	24.68	4.94
75	23.89	36.65	24.94	4.94
100	23.06	36.64	25.18	4.89
150	21.87	36.72	25.58	4.64
200	20.23	36.71	26.02	4.61
250	19.22	36.61	26.21	4.61
300	18.47	36.53	26.34	4.61
400	17.75	36.42	26.44	4.55
500	16.03	36.18	26.67	4.35
600	14.03	35.90	26.89	3.86
800	9.21	35.21	27.27	3.41
1000	5.94	35.03	27.61	4.77

STATION Standard 7

DATE June 13, 1954 LAT. 26°23'N. LONG. 76°46'W. TIME 18
DEPTH 4572 WIND 2 , 17 BAR. 19 AIR TEMP: dry 27.8°C, wet 25.0°C
HUMIDITY 80% WEATHER 03 CLOUDS: type 5 , amt. 3 SEA: dir. 17 , amt. 1
SWELL: dir. 11 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.00	36.53	23.57	4.63
10	27.30	36.48	23.76	4.62
20	26.99	36.52	23.89	4.71
50	24.99	36.56	24.54	4.93
100	23.15	36.64	25.15	4.89
150	21.91	36.62	25.49	4.89
200	20.34	36.71	25.99	4.54
300	18.40	36.55	26.38	4.62
400	17.69	36.44	26.47	4.52
600	13.93	35.84	26.87	3.85
800	8.97	35.21	27.31	3.36
1000	5.96	34.99	27.57	4.62

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.00	36.53	23.57	4.63
10	27.30	36.48	23.76	4.62
20	26.99	36.52	23.89	4.71
30	26.25	36.53	24.13	4.80
50	24.99	36.56	24.54	4.93
75	24.00	36.61	24.88	4.91
100	23.15	36.64	25.15	4.89
150	21.91	36.62	25.49	4.89
200	20.34	36.71	25.99	4.54
250	19.22	36.62	26.22	4.60
300	18.40	36.55	26.38	4.62
400	17.69	36.44	26.47	4.52
500	15.96	36.14	26.65	4.20
600	13.93	35.84	26.87	3.85
800	8.97	35.21	27.31	3.36
1000	5.96	34.99	27.57	4.62

STATION Standard 7

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.5	1.1	0.0	0.0	0.7
10	1.2	-	0.5	0.3	0.1
20	1.6	0.6	0.5	0.4	0.2
50	4.5	0.5	<0.5	1.6	0.1
100	2.0	0.6	0.5	1.3	2.6
150	0.9	-	<0.5	0.0	1.3
200	1.7	0.9	1.5	1.9	1.2
300	2.0	1.1	0.0	4.5	0.5
400	2.4	0.9	2.0	-	1.2
600	2.7	2.3	4.5	2.2	0.3
800	2.8	1.4	3.5	0.4	0.4
1000	3.0	1.6	20.5	-	1.9

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.5	1.1	0.0	0.0	0.7
10	1.2	0.9	0.5	0.3	0.1
20	1.6	0.6	0.5	0.4	0.2
30	2.6	0.6	<0.5	0.8	0.2
50	4.5	0.5	<0.5	1.6	0.1
75	3.3	0.5	<0.5	1.5	1.4
100	2.0	0.6	0.5	1.3	2.6
150	0.9	0.8	<0.5	0.0	1.3
200	1.7	0.9	1.5	1.9	1.2
250	1.9	1.0	1.0	3.2	0.9
300	2:0	1.1	0.0	4.5	0.5
400	2.4	0.9	2.0	3.8	1.2
500	2.6	1.6	3.5	3.0	0.8
600	2.7	2.3	4.5	2.2	0.3
700	2.7	1.9	4.0	1.3	0.4
800	2.8	1.4	3.5	0.4	0.4
1000	3.0	1.6	20.5	-	1.9

STATION Standard 8

DATE June 13, 1954 LAT. 26°23'N. LONG. 76°46'W. TIME 21

DEPTH 4572 WIND 2 , 13 BAR. 18 AIR TEMP: dry 27.8°C, wet 24.4°C

HUMIDITY 76% WEATHER 03 CLOUDS: type 4 , amt. 3 SEA: dir. 13 , amt. 1

SWELL: dir. 02 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.75	36.47	23.60	4.68
10	27.26	36.47	23.76	4.69
20	26.63	36.45	23.95	4.80
50	25.21	36.49	24.42	4.94
100	23.13	36.73	25.23	5.03
150	22.00	36.74	25.56	-
200	20.30	36.79	26.06	4.70
300	18.47	36.64	26.43	4.69
400	17.67	36.55	26.56	4.56
600	13.95	35.97	26.96	4.75*
800	8.86	35.24	27.35	3.36
1000	5.79	35.13	27.70	4.80

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.75	36.47	23.60	4.68
10	27.26	36.47	23.76	4.69
20	26.63	36.45	23.95	4.80
30	26.14	36.45	24.10	4.85
50	25.21	36.49	24.42	4.94
75	24.05	36.64	24.89	5.01
100	23.13	36.73	25.23	5.03
150	22.00	36.74	25.56	4.87
200	20.30	36.79	26.06	4.70
250	19.26	36.71	26.28	4.70
300	18.47	36.64	26.43	4.69
400	17.67	36.55	26.56	4.56
500	15.98	36.28	26.75	4.31
600	13.95	35.97	26.96	3.95
800	8.86	35.24	27.35	3.36
1000	5.79	35.13	27.70	4.80

STATION Standard 9

DATE June 13, 1954 LAT. 26°24'N. LONG. 76°47'W. TIME 24
DEPTH 4443 WIND 3 , 09 BAR. 17 AIR TEMP: dry 27.2°C, wet 24.4°C
HUMIDITY 80% WEATHER 02 CLOUDS: type 4 , amt. 3 SEA: dir. 13 , amt. 1
SWELL: dir. 35 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.97	36.73	23.73	4.55
10	27.47	36.69	23.86	4.68
20	26.85	36.66	24.04	4.69
50	24.68	36.61	24.68	5.00
100	23.17	36.69	25.18	4.91
150	21.82	36.74	25.61	4.70
200	20.45	36.80	26.03	4.64
300	18.41	36.65	26.45	4.65
400	17.68	36.53	26.54	4.61
600	14.24	35.98	26.91	3.86
800	9.35	35.32	27.33	3.41
1000	6.08	35.12	27.66	4.54

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.97	36.73	23.73	4.55
10	27.47	36.69	23.86	4.68
20	26.85	36.66	24.04	4.69
30	26.02	36.64	24.28	4.82
50	24.68	36.61	24.68	5.00
75	23.91	36.65	24.94	4.97
100	23.17	36.69	25.18	4.91
150	21.82	36.74	25.61	4.70
200	20.45	36.80	26.03	4.64
250	19.27	36.72	26.28	4.65
300	18.41	36.65	26.45	4.65
400	17.68	36.53	26.54	4.61
500	16.14	36.27	26.71	4.27
600	14.24	35.98	26.91	3.86
800	9.35	35.32	27.33	3.41
1000	6.08	35.12	27.66	4.54

STATION Standard 10

DATE June 14, 1954 LAT. 26°24'N. LONG. 76°47'W. TIME 02
DEPTH 4206 WIND 4 , 11 BAR. 18 AIR TEMP: dry 27.2°C, wet 24.4°C
HUMIDITY 80% WEATHER 02 CLOUDS: type 3 , amt. 3 SEA: dir. 16 , amt. 2
SWELL: dir. 35 , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.68	36.64	23.75	4.61
10	27.58	36.62	23.77	4.53
19	26.95	36.56	23.93	4.63
46	25.78	36.58	24.31	4.74
95	23.44	36.67*	25.09	4.88
143	22.12	36.65	25.46	4.87
191	20.58	36.73	25.94	4.69
290	18.56	36.62	26.39	4.54
382	17.79	36.55	26.53	4.46
575	14.57	36.00	26.85	4.66*
770	9.98	35.33	27.23	3.19
965	6.50	35.08	27.57	4.22

*Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.68	36.64	23.75	4.61
10	27.58	36.62	23.77	4.53
20	26.91	36.56	23.94	4.63
30	26.48	36.57	24.09	4.68
50	25.55	36.58	24.39	4.76
75	24.27	36.60	24.79	4.84
100	23.31	36.62	25.09	4.89
150	21.88	36.67	25.54	4.86
200	20.35	36.72	26.00	4.67
250	19.23	36.66	26.25	4.59
300	18.50	36.62	26.40	4.53
400	17.55	36.50	26.55	4.48
500	15.98	36.23	26.72	4.16
600	13.92	35.89	26.91	3.75
800	9.37	35.26	27.28	3.23

STATION Standard 11

DATE June 14, 1954 LAT. 26°20'N. LONG. 76°47'W. TIME 05
DEPTH 4206 WIND 7 , 21 BAR. 17 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 5 , amt. 3 SEA: dir. 21 , amt. 2
SWELL: dir. 36 , amt. 1 VIS. - WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.51	36.55	23.74	4.59
10	27.46	36.56	23.77	4.61
20	27.33	36.58	23.82	4.62
50	25.63	36.57	24.35	4.83
100	23.54	36.60	25.01	5.01
150	22.11*	36.65	25.46	4.87
200	20.43	36.71	25.97	4.62
300	18.35	36.60	26.43	4.62
400	17.60	36.53	26.56	4.46
600	13.80	35.88	26.93	3.79
800	9.11	35.23	27.30	3.36
1000	5.84	35.12	27.69	4.73

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.51	36.55	23.74	4.59
10	27.46	36.56	23.77	4.61
20	27.33	36.58	23.82	4.62
30	26.73	36.57	24.01	4.67
50	25.63	36.57	24.35	4.83
75	24.50	36.58	24.71	4.96
100	23.54	36.60	25.01	5.01
150	21.90	36.65	25.52	4.87
200	20.43	36.71	25.97	4.62
250	19.22	36.65	26.24	4.62
300	18.35	36.60	26.43	4.62
400	17.60	36.53	26.56	4.46
500	15.81	36.21	26.74	4.18
600	13.80	35.88	26.93	3.79
800	9.11	35.23	27.30	3.36
1000	5.84	35.12	27.69	4.73

STATION Standard 12

DATE June 14, 1954 LAT. 26°20'N. LONG. 76°47'W. TIME 08
DEPTH 4206 WIND 4 , 21 BAR. 17 AIR TEMP: dry 25.0°C, wet 23.3°C
HUMIDITY 87% WEATHER 02 CLOUDS: type -, amt. 2 SEA: dir. 21, amt. 1
SWELL: dir. 35, amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.49	36.45	23.67	4.62
10	27.50	36.49	23.70	4.62
20	27.33	36.64*	23.87	4.65
50	25.66	36.58	24.35	4.87
100	23.40	36.69	25.12	5.04
150	21.96	36.62	25.48	4.87
200	20.59	36.69	25.91	4.74
300	18.47	36.60	26.40	4.62
400	17.59	36.62*	26.63	4.46
600	13.38	35.88	27.01	3.74
800	8.88	35.28	27.38	3.45
1000	5.45	35.17	27.78	5.04

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.49	36.45	23.67	4.62
10	27.50	36.49	23.70	4.62
20	27.33	36.51	23.77	4.65
30	26.95	36.53	23.91	4.70
50	25.66	36.58	24.35	4.87
75	24.43	36.66	24.79	5.00
100	23.40	36.69	25.12	5.04
150	21.96	36.62	25.48	4.87
200	20.59	36.69	25.91	4.74
250	19.38	36.66	26.21	4.69
300	18.47	36.60	26.40	4.62
400	17.59	36.53	26.56	4.46
500	15.52	36.25	26.84	4.13
600	13.38	35.88	27.01	3.74
800	8.88	35.28	27.38	3.45
1000	5.45	35.17	27.78	5.04

STATION Standard 13

DATE June 14, 1954 LAT. 26°20'N. LONG. 76°40'W. TIME 11
DEPTH 4938 WIND 2 , 20 BAR. 17 AIR TEMP: dry 26.7°C, wet 23.9°C
HUMIDITY 79% WEATHER 01 CLOUDS: type 5 , amt. 3 SEA: dir. 21 , amt. 1
SWELL: dir. 35 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.53	36.69	23.84	4.62
10	27.51	36.71	23.86	4.63
20	26.96	36.70	24.03	4.73
50	25.11	36.70	24.61	4.99
100	23.36	36.82	25.23	4.99
150	21.39	36.75	25.74	4.83
200	20.25	36.77	26.06	4.65
300	18.44	36.64	26.43	4.56
400	17.49	36.53	26.59	4.48
600	14.04	35.93	26.91	3.86
800	9.36	35.34	27.34	3.37
1000	5.98	35.10	27.66	4.72

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.53	36.69	23.84	4.62
10	27.51	36.71	23.86	4.63
20	26.96	36.70	24.03	4.73
30	26.28	36.70	24.25	4.84
50	25.11	36.70	24.61	4.99
75	24.26	36.76	24.92	4.99
100	23.36	36.82	25.23	4.99
150	21.39	36.75	25.74	4.83
200	20.25	36.77	26.06	4.65
250	19.24	36.70	26.28	4.60
300	18.44	36.64	26.43	4.56
400	17.49	36.53	26.59	4.48
500	15.92	36.28	26.77	4.18
600	14.04	35.93	26.91	3.86
800	9.36	35.34	27.34	3.37
1000	5.98	35.10	27.66	4.72

STATION Standard 14

DATE June 14, 1954 LAT. 26°20'N. LONG. 76°41'W. TIME 14
DEPTH 4755 WIND 0 , 00 BAR. 19 AIR TEMP: dry 26.1°C, wet 23.3°C
HUMIDITY 79% WEATHER 03 CLOUDS: type 8 , amt. 6 SEA: dir. - , amt. -
SWELL: dir. 30 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.48	36.71	23.87	4.63
10	27.45	36.70	23.87	4.70
20	27.39	36.69	23.89	4.69
50	25.58	36.68	24.45	4.91
100	23.36	36.78	25.20	5.00
150	21.61	36.78	25.70	4.83
200	20.35	36.76	26.03	4.72
300	18.37	36.68*	26.48	4.63
400	17.64	36.47	26.50	4.50
600	13.92	35.88	26.90	3.82
800	9.16	35.22	27.28	3.38
1000	5.82	35.06	27.64	4.76

* Value questionable

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.48	36.71	23.87	4.63
10	27.45	36.70	23.87	4.70
20	27.39	36.69	23.89	4.69
30	26.75	36.68	24.08	4.74
50	25.58	36.68	24.45	4.91
75	24.41	36.74	24.86	4.97
100	23.36	36.78	25.20	5.00
150	21.61	36.78	25.70	4.83
200	20.35	36.76	26.03	4.72
250	19.20	36.69	26.28	4.68
300	18.37	36.60	26.42	4.63
400	17.64	36.47	26.50	4.50
500	15.91	36.18	26.69	4.22
600	13.92	35.88	26.90	3.82
800	9.16	35.22	27.28	3.38
1000	5.82	35.06	27.64	4.76

STATION Standard 15

DATE June 14, 1954 LAT. 26°20'N. LONG. 76°42'W. TIME 17
DEPTH 4572 WIND 3 , 14 BAR. 18 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 5 , amt. 7 SEA: dir. 12 , amt. 1
SWELL: dir. 30 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.57	36.65	23.80	4.70
10	27.40	36.64	23.84	4.64
20	27.33	36.62	23.85	4.62
50	25.22	36.63	24.53	4.91
100	23.31	36.71	25.16	4.96
150	21.51	36.66	25.63	4.87
199	20.37	36.73	26.00	4.62
299	18.49	36.57	26.37	4.51
398	17.66	36.46	26.49	4.54
598	14.06	35.89	26.88	3.96
796	9.34	35.21	27.25	3.36
992	5.95	35.03	27.60	4.70

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.57	36.65	23.80	4.70
10	27.40	36.64	23.84	4.64
20	27.33	36.62	23.85	4.62
30	26.52	36.62	24.11	4.65
50	25.22	36.63	24.53	4.91
75	24.25	36.69	24.87	4.95
100	23.31	36.71	25.16	4.96
150	21.51	36.66	25.63	4.84
200	20.35	36.72	26.00	4.61
250	19.28	36.65	26.23	4.54
300	18.46	36.57	26.38	4.52
400	17.64	36.45	26.49	4.52
500	16.00	36.19	26.68	4.35
600	14.01	35.88	26.88	3.92
800	9.26	35.19	27.24	3.38

STATION Special 5

DATE June 11, 1954 LAT. 30°00'N. LONG. 77°00'W. TIME 01
DEPTH 969 WIND 5 , 19 BAR. 13 AIR TEMP: dry 26.7 °C, wet 25.0 °C
HUMIDITY 87% WEATHER 01 CLOUDS: type 8 , amt. 6 SEA: dir. 19 , amt. 2
SWELL: dir. 26 , amt. 1 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.22	36.34	24.00	4.66
7	25.36	36.33	24.26	4.73
15	25.08	36.42	24.41	-
39	23.60	36.60	24.99	4.96
80	21.82	36.71	25.59	5.12
121	20.71	36.82	25.98	-
165	20.06	36.80	26.14	-
247	18.52	36.69	26.45	-
330	17.89	36.60	26.54	4.39
500	15.71	36.33	26.85	4.07
675	11.77	35.70	27.19	3.47
764	9.62	35.44	27.38	2.96

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.22	36.34	24.00	4.66
10	25.27	36.37	24.31	4.76
20	24.74	36.46	24.54	4.83
30	24.12	36.54	24.79	4.92
50	23.06	36.63	25.17	5.04
75	22.00	36.70	25.53	5.10
100	21.22	36.78	25.81	-
150	20.30	36.81	26.08	-
200	19.29	36.75	26.30	-
250	18.50	36.69	26.46	-
300	18.15	36.64	26.51	-
400	17.19	36.53	26.66	4.27
500	15.71	36.33	26.85	4.07
600	13.51	35.95	27.04	3.79

STATION Special 5

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.9	1.9	0.5	0.6	1.6
7	1.0	2.9*	0.5	2.7	0.8
15	1.0	1.1	<0.5	2.8	1.5
39	1.3	1.2	0.5	0.0	-
80	1.5	1.2	<0.5	0.7	1.6
121	1.5	0.4	2.0	0.0	1.5
165	1.3	0.6	0.5	2.5	0.4
247	1.0	0.7	4.0	0.0	0.3
330	1.3	0.6	1.0	0.0	2.1
500	1.7	0.9	8.5	1.2	1.3
675	2.4	1.5	10.5	1.1	0.8
764	2.9	4.8*	10.5	1.0	0.3

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.9	1.9	0.5	0.6	1.6
10	1.0	-	<0.5	2.8	1.1
20	1.1	1.1	<0.5	2.3	1.5
30	1.2	1.2	<0.5	1.1	1.6
50	1.4	1.2	0.5	0.2	1.6
75	1.5	1.2	<0.5	0.6	1.6
100	1.5	0.8	1.0	0.4	1.6
150	1.4	0.6	1.0	1.7	0.8
200	1.2	0.7	2.0	1.4	0.4
250	1.0	0.7	4.0	0.0	0.3
300	1.2	0.7	2.0	0.0	1.5
400	1.5	0.8	4.0	0.5	1.8
500	1.7	0.9	8.5	1.2	1.3
600	2.1	1.3	9.5	1.2	1.0
700	2.6	1.5	10.5	1.1	0.7

STATION Special 6

DATE June 11, 1954 LAT. 29°00'N. LONG. 77°00'W. TIME 11
DEPTH 1079 WIND 3 , 27 BAR. 12 AIR TEMP: dry 26.1 °C, wet 25.0 °C
HUMIDITY 91% WEATHER 60 CLOUDS: type 3 , amt. 7 SEA: dir. 27 , amt. 1
SWELL: dir. 23 , amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.45	36.24	23.85	4.43
9	26.48	36.35	23.92	4.60
19	25.72	36.37	24.17	4.72
47	24.53	36.64	24.74	-
95	22.61	36.75	25.39	4.94
142	21.45	36.86	25.80	-
190	19.95	36.85	26.20	-
287	16.47	36.41	26.74	3.99
384	13.92	36.01	27.00	3.80
579	10.63	35.52	27.27	3.44
775	7.46	35.21	27.54	4.26
972	4.90	35.16	27.84	-

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.45	36.24	23.85	4.43
10	26.40	36.35	23.95	4.61
20	25.68	36.38	24.19	4.73
30	25.25	36.49	24.41	4.77
50	24.39	36.65	24.79	4.85
75	23.32	36.70	25.15	4.91
100	22.50	36.77	25.44	-
150	21.21	36.87	25.88	-
200	19.55	36.80	26.27	-
250	17.69	36.57	26.57	-
300	16.09	36.35	26.78	3.96
400	13.64	35.96	27.02	3.77
500	11.95	35.70	27.16	3.55
600	10.26	35.47	27.29	3.47
800	7.10	35.19	27.57	-

STATION Special 6

OBSERVED

DEPTH (m)	TOTAL P (μg at/l)	PO_4-P (μg at/l)	NO_3-NO_2 (μg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.1	-	0.5	-	0.8
9	1.1	0.9	1.0	4.7	-
19	1.7	0.7	0.5	1.2	1.4
47	1.3	0.6	1.0	-	1.1
95	1.4	-	0.5	1.6	1.4
142	1.1	0.6	0.5	2.2	1.2
190	1.7	0.6	3.0	0.0	1.0
287	2.0	1.0	2.5	0.0	1.2
384	1.7	1.2	16.0	-	0.7
579	3.3	3.0	15.5	0.2	0.3
775	-	2.3	25.0	0.0	0.7
968	2.6	2.8	21.0	0.1	0.5

INTERPOLATED

DEPTH (m)	TOTAL P (μg at/l)	PO_4-P (μg at/l)	NO_3-NO_2 (μg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.1	-	0.5	-	0.8
10	1.1	0.9	1.0	4.7	1.1
20	1.7	0.7	0.5	1.2	1.4
30	1.5	0.7	1.0	1.3	1.3
50	1.3	0.6	1.0	1.4	1.1
75	1.4	0.6	1.0	1.5	1.3
100	1.4	0.6	0.5	1.6	1.4
150	1.2	0.6	0.5	2.2	1.2
200	1.7	0.6	3.0	0.0	1.0
250	1.9	0.9	2.5	0.0	1.1
300	2.0	1.1	4.5	0.0	1.2
400	1.8	1.4	16.0	0.1	0.7
500	2.7	2.3	15.5	0.2	0.5
600	3.3	3.0	16.5	0.2	0.4
700	3.1	2.6	21.5	0.1	0.6
800	2.9	2.4	24.5	0.0	0.7

497963 O-59—18

STATION Special 7

DATE June 11, 1954 LAT. 28°07'N. LONG. 76°32'W. TIME 20
DEPTH 4937 WIND 4 , 26 BAR. 11 AIR TEMP: dry 28.3 °C, wet 25.0 °C
HUMIDITY 77% WEATHER 01 CLOUDS: type - , amt. 0 SEA: dir. 26 , amt. 1
SWELL: dir. 08 , amt. 2 VIS. 8 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	26.75	36.36	23.84	4.62
10	26.65	36.38	23.89	4.63
20	25.91	36.42	24.15	4.70
50	24.65	36.70	24.75	4.91
100	22.98	36.74	25.28	4.92
150	21.97	36.72	25.55	4.88
200	20.09	36.72	26.07	5.02
300	18.57	36.71	26.46	4.76
400	18.06	36.67	26.55	4.70
600	15.62	36.26	26.82	4.12
800	11.48	35.62	27.19	3.61
1000	7.11	35.22	27.60	3.95

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	26.75	36.36	23.84	4.62
10	26.65	36.38	23.89	4.63
20	25.91	36.42	24.15	4.70
30	25.47	36.53	24.37	4.79
50	24.65	36.70	24.75	4.91
75	23.73	36.73	25.05	4.92
100	22.98	36.74	25.28	4.92
150	21.97	36.72	25.55	4.88
200	20.09	36.72	26.07	5.02
250	19.07	36.72	26.33	4.87
300	18.57	36.71	26.46	4.76
400	18.06	36.67	26.55	4.70
500	17.05	36.51	26.68	4.47
600	15.62	36.26	26.82	4.12
800	11.48	35.62	27.19	3.61
1000	7.11	35.22	27.60	3.95

STATION Special 7

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.9	1.3	0.0	0.2	0.1
10	1.1	0.3	0.0	1.4	0.4
20	1.7	0.9	0.0	13.4	0.7
50	-	1.6	0.0	0.1	-
100	-	1.3	1.0	3.4	0.0
150	1.2	0.6	0.5	0.0	1.1
200	1.1	0.2	0.0	0.0	3.9
300	1.3	0.8	1.5	0.0	1.0
400	2.1	2.1	3.0	-	0.4
600	2.2	1.0	7.5	11.9	1.1
800	2.3	2.2	3.5	-	0.1
1000	3.1	3.0	19.5	0.8	0.4

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.9	1.3	0.0	0.2	0.1
10	1.1	0.3	0.0	1.4	0.4
20	1.7	0.9	0.0	13.4	0.7
30	-	1.1	0.0	-	-
50	-	1.6	0.0	0.1	-
75	-	1.5	0.5	1.7	-
100	-	1.3	1.0	3.4	0.0
150	1.2	0.6	0.5	0.0	1.1
200	1.1	0.2	0.0	0.0	3.9
250	1.2	0.5	1.0	0.0	2.5
300	1.3	0.8	1.5	0.0	1.0
400	2.1	2.1	3.0	-	0.4
500	2.2	1.6	5.0	-	0.8
600	2.2	1.0	7.5	11.9	1.1
700	2.3	1.6	5.5	-	0.6
800	2.3	2.2	3.5	-	0.1
1000	3.1	3.0	19.5	0.8	0.4

STATION Special 8

DATE June 12, 1954 LAT. 28°00'N. LONG. 78°00'W. TIME 07
DEPTH 1033 WIND 2 ,28 BAR. 13 AIR TEMP: dry 27.2°C, wet 25.0°C
HUMIDITY 84% WEATHER 03 CLOUDS: type 4 ,amt. 1 SEA: dir. - ,amt. -
SWELL: dir. 06 ,amt. 1 VIS. 7 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.50	36.31	23.56	4.89
10	27.29	36.33	23.65	4.95
20	26.81	36.25	23.74	4.69
50	25.22	36.47	24.40	4.57
100	23.44	36.78	25.17	4.69
150	21.79	36.76	25.63	-
200	20.09	36.82	26.14	4.54
300	18.36	36.64	26.45	4.61
400	17.50	36.57	26.61	4.40
600	13.67	35.91	26.98	4.61
800	8.86	35.34	27.43	3.33
1000	4.65	35.17	27.87	5.62

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	**27.50**	**36.31**	**23.56**	**4.89**
10	27.29	36.33	23.65	4.95
20	26.81	36.25	23.74	4.69
30	26.24	36.33	23.98	4.63
50	25.22	36.47	24.40	4.57
75	24.31	36.67	24.83	4.65
100	23.44	36.78	25.17	4.69
150	21.79	36.76	25.63	4.59
200	20.09	36.82	26.14	4.54
250	19.00	36.72	26.35	4.57
300	18.36	36.64	26.45	4.61
400	17.50	36.57	26.61	4.40
500	15.71	36.23	26.78	4.49
600	13.67	35.91	26.98	4.61
800	8.86	35.34	27.43	3.33
1000	4.65	35.17	27.87	5.62

STATION Special 8

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	2.9	1.7	0.5	0.5	0.4
10	0.6	0.6	0.0	1.5	3.9
20	0.8	0.7	1.0	-	1.6
50	-	0.7	<0.5	-	1.3
100	0.6	-	<0.5	0.4	1.0
150	0.6	-	0.5	0.0	1.1
200	1.0	-	<0.5	0.2	0.6
300	0.9	0.7	1.0	0.1	1.0
400	-	1.2	0.5	0.0	1.6
600	2.3	1.7	1.5	0.2	1.3
800	2.0	-	6.0	7.8	1.8
1000	2.2	-	2.0	0.0	1.2

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	2.9	1.7	0.5	0.5	0.4
10	0.6	0.6	0.0	1.5	3.9
20	0.8	0.7	1.0	-	1.6
30	0.8	0.7	1.0	-	1.5
50	0.7	0.7	<0.5	-	1.3
75	0.7	-	<0.5	-	1.2
100	0.6	-	<0.5	0.4	1.0
150	0.6	-	0.5	0.0	1.1
200	1.0	-	<0.5	0.2	0.6
250	1.0	-	0.5	0.2	0.8
300	0.9	0.7	1.0	0.1	1.0
400	1.4	1.2	0.5	0.0	1.6
500	1.9	1.5	1.0	0.1	1.5
600	2.3	1.7	1.5	0.2	1.3
700	2.2	-	3.5	-	1.6
800	2.0	-	6.0	7.8	1.8
1000	2.2	-	2.0	0.0	1.2

STATION Special 9

DATE June 24, 1954 LAT. 27°57'N. LONG. 79°00'W. TIME 08
DEPTH 823 WIND 3 , 16 BAR. 17 AIR TEMP: dry 26.7°C, wet 24.4°C
HUMIDITY 83% WEATHER 02 CLOUDS: type - , amt. 7 SEA: dir. 16 , amt. 1
SWELL: dir. 02 , amt. 1 VIS. 6 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	27.11	35.84	23.34	4.52
10	27.13	35.81	23.31	-
20	27.12	35.86	23.35	4.50
50	26.49	36.08	23.71	4.66
100	23.63	36.63	25.00	4.72
150	21.58	36.73	25.67	4.64
200	19.98	36.68	26.07	4.50
300	18.45	36.58	26.39	4.47
400	17.03	36.36	26.57	4.26
500	15.23	36.06	26.75	3.88
800	6.94	34.97	27.42	3.16

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	27.11	35.84	23.34	4.52
10	27.13	35.81	23.31	4.50
20	27.12	35.86	23.35	4.50
30	27.00	35.91	23.42	4.53
50	26.49	36.08	23.71	4.66
75	25.18	36.40	24.36	4.71
100	23.63	36.63	25.00	4.72
150	21.58	36.73	25.67	4.64
200	19.98	36.68	26.07	4.50
250	19.05	36.63	26.27	4.48
300	18.45	36.58	26.39	4.47
400	17.03	36.36	26.57	4.26
500	15.23	36.06	26.75	3.88
600	13.00	35.69	26.95	3.45
700	10.61	35.33	27.12	3.03
800	6.94	34.97	27.42	3.16

STATION Special 9

OBSERVED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
1	1.4	0.4	<0.5	1.1	1.1
10	3.2	3.3*	0.5	1.1	0.8
20	1.5	0.1	0.5	0.0	1.8
50	1.7	0.4	<0.5	1.8	1.6
100	4.8	3.9	1.5	0.0	1.7
150	2.0	2.0	1.5	1.9	1.0
200	2.0	1.5	-	0.0	0.6
300	1.5	0.7	1.5	0.1	0.4
400	1.5	1.3	2.0	2.1	1.9
500	1.9	1.9	0.5	2.3	0.2
700	3.6	2.6	0.5	0.7	0.2
800	-	3.4	25.5	1.1	1.0

* Value questionable

INTERPOLATED

DEPTH (m)	TOTAL P (µg at/l)	PO_4-P (µg at/l)	NO_3-NO_2 (µg at/l)	ARABINOSE (mg/l)	TYROSINE (mg/l)
0	1.4	0.4	<0.5	1.1	1.1
10	3.2	0.3	0.5	1.1	0.8
20	1.5	0.1	0.5	0.0	1.8
30	1.6	0.2	0.5	0.6	1.7
50	1.7	0.4	<0.5	1.8	1.6
75	3.3	2.2	1.0	0.9	1.7
100	4.8	3.9	1.5	0.0	1.7
150	2.0	2.0	1.5	1.9	1.0
200	2.0	1.5	1.5	0.0	0.6
250	1.8	1.1	1.5	0.1	0.5
300	1.5	0.7	1.5	0.1	0.4
400	1.5	1.3	2.0	2.1	1.9
500	1.9	1.9	0.5	2.3	0.2
600	2.6	2.3	0.5	1.5	0.2
700	3.6	2.6	0.5	0.7	0.2
800	-	3.4	25.5	1.1	1.0

STATION Tongue of the Ocean 1

DATE June 18, 1954 LAT. 23°40'N. LONG. 76°50'W. TIME 22
DEPTH 1353 WIND 3 , 12 BAR. 13 AIR TEMP: dry 28.3°C, wet 25.6°C
HUMIDITY 80% WEATHER 03 CLOUDS: type 2 , amt. 8 SEA: dir. 12 , amt. 1
SWELL: dir. - , amt. 1 VIS. 9 WATER TRANS. -

OBSERVED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
1	28.25	36.55	23.50	4.62
10	27.38	36.50	23.75	4.64
50	25.57	36.82	24.56	4.86
100	24.03	36.81	25.02	4.70
200	22.22	36.76	25.51	4.21
400	16.70	36.26	26.57	3.94
600	12.00	35.61	27.08	3.47
800	8.49	35.18	27.36	3.65
1000	5.40	35.03	27.67	5.13
1100	4.87	35.01	27.72	5.40
1200	-	34.99	-	-
1300	4.25	34.99	27.77	5.55

INTERPOLATED AND CALCULATED

DEPTH (m)	T (°C)	S (‰)	σ_t	O_2 (ml/l)
0	28.25	36.55	23.50	4.62
10	27.38	36.50	23.75	4.64
20	26.88	36.61	23.99	4.72
30	26.41	36.70	24.21	4.79
50	25.57	36.82	24.56	4.86
75	24.75	36.82	24.81	4.79
100	24.03	36.81	25.02	4.70
150	23.20	36.80	25.26	4.43
200	22.22	36.76	25.51	4.21
250	20.97	36.68	25.80	4.16
300	19.68	36.58	26.07	4.10
400	16.70	36.26	26.57	3.94
500	14.20	35.91	26.86	3.62
600	12.00	35.61	27.08	3.47
800	8.49	35.18	27.36	3.65
1000	5.40	35.03	27.67	5.13
1200	4.50	34.99	27.75	5.50

* U.S. GOVERNMENT PRINTING OFFICE : 1959 O—497963